REPORT RESUMES

ED 003 434 24

SEMINAR ON HUMAN DEVELOPMENT AND EDUCATION.

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REPORT NUMBER CRP-G-026 PUB DATE 64
EDRS PRICE MF-$0.18 HC-$3.28 82P.

DESCRIPTORS- *CHILD DEVELOPMENT, GROWTH PATTERNS, *PRESCHOOL EDUCATION, INTERPERSONAL RELATIONSHIP, *TEACHER EDUCATION, STUDENT TEACHER RELATIONSHIP, INSERVICE TEACHER EDUCATION, *COGNITIVE DEVELOPMENT, *SEMINARS, LEXINGTON, KENTUCKY

CHILD DEVELOPMENT TOPICS RELATING TO PRESERVICE AND INSERVICE TEACHER EDUCATION WERE DISCUSSED BY 38 COLLEGE TEACHER PARTICIPANTS AND CONSULTANTS DURING A SEMINAR HELD IN LEXINGTON, KENTUCKY, AUGUST 16-28, 1964. THE FOLLOWING PAPERS WERE PUBLISHED--(1) THE BACKGROUND OF PHYSICAL GROWTH--PRINCIPLES AND CONCEPTS, (2) THE CONTROVERSIAL ASPECTS OF NURSERY EDUCATION AND CHILD DEVELOPMENT--POTENTIAL PROBLEMS FOR THE FUTURE, (3) EDUCATION AND THE INTERPERSONAL IMPACT--IMPLICATIONS FROM PSYCHOTHERAPY AND COUNSELING RESEARCH, AND (4) FACTORS THAT INFLUENCE DEVELOPMENT, LEARNING, AND BEHAVIOR. THE PARTICIPANTS CONCLUDED THAT THE SEMINAR MET THE GENERAL OBJECTIVES OF (1) DEVELOPING A STRONGER IDENTIFICATION WITH THE FIELD OF CHILD DEVELOPMENT AND (2) ATTAINING A HEIGHTENED AWARENESS OF THE CONTRIBUTION WHICH STUDY IN THE FIELD MAKES TO THE TRAINING OF TEACHERS. (JM)

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SEMINAR ON HUMAN DEVELOPMENT AND EDUCATION

Cooperative Research Project No. G-026

Carl D. Tatum

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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UNIVERSITY OF KENTUCKY

SEMINAR ON HUMAN DEVELOPMENT AND EDUCATION

Cooperative Research Project No. G-026

Directed by Carl D. Tatum

University of Kentucky
Lexington, Kentucky

1964

The research reported herein was supported by the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare.

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COMPOSITION OF THE SEMINAR

The Inter-Institutional Seminar on Human Development and Education was held at Campbell House Inn, Lexington, Kentucky, from August 16 to August 28, 1964. The Seminar was directed by Dr. Carl D. Tatum, Associate Professor, University of Kentucky.

A. Major Consultants:

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Ann Arbor, Michigan

Dr. Dan Prescott
Institute for Child Study
University of Maryland
College Park, Maryland

Dr. Charles B. Truax
Psychotherapy Research Group
University of Kentucky
Lexington, Kentucky

B. Special Consultants:

Mrs. Phyllis Stern
Teacher of Emotionally Disturbed Children
University of Illinois
Urbana, Illinois

Mr. Tracy Stockman
Assistant Superintendent in Charge of Special Education
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Marshall, Michigan

C. Participants

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University of Kentucky
Lexington, Kentucky

Miss Mary D. Browder, Instructor
University of Kentucky
Lexington, Kentucky

Dr. William Carse, Director Counseling and Guidance
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University of Kentucky
Lexington, Kentucky

Dr. Perry Childers, Assistant Professor
University of Kentucky
Lexington, Kentucky

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Sydney, Australia

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Cumberland College
Williamsburg, Kentucky

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St. Catharine, Kentucky

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Richmond, Kentucky

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Richmond, Kentucky

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Lexington, Kentucky

Dr. Richard Miller, Associate Professor
University of Kentucky
Lexington, Kentucky

Miss Kathleen Moore, Instructor
Union College
Barbourville, Kentucky

Sister Natalie (Ring), Instructor
Brescia College
Owensboro, Kentucky

Dr. Mary Northcutt, Instructor
Morehead State College
Morehead, Kentucky

Dr. Robert Plants, Associate Professor
University of Mississippi
Oxford, Mississippi

Dr. Leonard Ravitz, Associate Professor
University of Kentucky
Lexington, Kentucky

Miss Emily D. Reeves, Instructor
Centre College
Danville, Kentucky

Mrs. Opal Lee Reynolds, Instructor
Sue Bennett College
London, Kentucky

Dr. Agnes Ronaldson, Associate Professor
Berea College
Berea, Kentucky

Dr. Douglas Schwartz, Professor
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Lexington, Kentucky

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Western Kentucky State College
Bowling Green, Kentucky

Miss Rubie E. Smith, Associate Professor
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University of Louisville
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University of Kentucky
Lexington, Kentucky

Dr. Ray Wilkie, Associate Professor
University of Kentucky
Lexington, Kentucky

Dr. Leonard Woolum, Professor
Eastern Kentucky State College
Richmond, Kentucky

PROBLEM ON WHICH THE SEMINAR WAS FOCUSED

The seminar was organized around topics in child development related to pre-service and in-service teacher education and their coordination. The following questions, among others, served as topics for presentation and discussion. What does the field of child development encompass? What are the significant differences between the related fields of child development, child psychology and educational psychology? How is child development now taught at college level? What are the current research topics most frequently associated with the field of child development? How can child development principles be more fully utilized by school people at the school, community and the state levels?

By focusing attention on the above topics, the seminar attempted to deal with the following three major problems:

1. The need to upgrade the caliber of the Human Development teachers in the colleges in Kentucky.
2. The need to synthesize the offerings in the Human Development courses with the help of a representative group of experts in the field.
3. The need for continued on-the-job development of the staff.

OBJECTIVES

It was expected that all participants in the seminar would develop a stronger identification with the field of child development and a heightened awareness of the contribution with which study in the field makes to the training of teachers.

The specific objectives of the seminar included:

1. An increase in agreement among college and university instructors regarding the basic and unique content of the field of child development.

2. An improvement in the participating instructors' effectiveness in teaching their courses.

3. A development of awareness of the primary and common goal shared by college instructors and school supervisors (i.e., the improvement of teaching in the state's elementary and secondary schools).

4. A higher degree of concordance regarding child development principles which are most significant for teachers, as well as specific practices and procedures to which those principles are most definitely related.

5. An increase in the effectiveness of college teachers as consultants for locally sponsored workshops, conferences, and extension teaching.

6. An increase in newly initiated programs by supervisors in local school districts.

SCHEDULE AND METHODS OF PROCEDURE

During the course of the seminar, the following schedule was followed:

8:00 a.m.	**Breakfast**
9:00 a.m.	**Session**
10:15 a.m.	**Coffee Break**
10:30 a.m.	**Session**
12:15 p.m.	**Lunch**
2:00 p.m.	**Session**
6:00 p.m.	**Dinner**
8:00 p.m.	**Session and/or Recreation**

PARTICIPANTS' EVALUATION

At the conclusion of the Seminar, the participants were asked to fill out an evaluation sheet. The areas of the evaluation are in bold type and the pertinent comments follow.

1. IN TERMS OF YOUR OWN INDIVIDUAL GROWTH

"I was stimulated for further reading. The seminar opened up new areas for exploration, I learned many new sources of information and gained further direction for personal learnings."

"In terms of my own individual growth I feel that the experience was most valuable and worthwhile. I am new to the program and have much to learn, much to think about, and much to do. Perhaps this has done something to 'lead me to the threshold of my own mind.'"

"The results of this seminar will have far reaching effects on my future teaching."

"It has had tremendous value in information, in contact with people in the field, and in focusing and stabilizing a point of view."

From 6:30 Sunday evening, August 16, through 10:30 a.m., August 28--a total of 256 living hours--"I grew more than in my total 41 years in really understanding myself."

"I was introduced to several new books and tapes and had the opportunity to meet and to know in a personal way some outstanding and stimulating leaders and consultants in the field of Human Development. We have now established a common ground."

"This Seminar gave me the opportunity to know new people, peruse materials, and hear about research being carried on."

"I felt broadened through the confrontation of diversified opinions and convictions and experienced growth in social areas."

"Most of the significant additivies for me came from individual contacts and introduction to new books."

"I felt that I had so much from which to select that I was pressed very hard. In summarization, I feel that I gained much more than I was able to give or share with others."

"This was a good opportunity for growth in information and attitude."

"This experience stimulated my thinking and enriched my background. It interested me in reading further and suggested specific books. It gave me a new look at research."

"I came to know thirty new people and to value something about each. I came to know some excellent new books. I went further in thinking with the consultants."

2. IN TERMS OF GROUP GROWTH THROUGH INTERACTION

A. SMALL INFORMAL DISCUSSIONS

"Rather good. Lagged in the first three days because of lecture structure. This may not be bad."

"Excellent"

"Excellent"

"Not as attractive to me as I think they should have been."

"Some of the small group discussions seemd forced and portrayed a lack of sincere interest. Others were stimulating."

"Some spontaneous small groups were more valuable than the planned ones."

"Very profitable. I discovered that some individuals who did not verbalize much at larger group could make significant contributions when more at ease in smaller groups."

"Most valuable but might have had more after formal discussions."

"This was good--should have had more time allotted for this."

"This was helpful in extending and clarifying ideas introduced in formal groups. It might have been desirable (if possible) to have more time for informal and casual associations."

"This is when I was 'climbing the mountain'. Honest communication is to me more relaxing and exhilerating than getting drunk."

"The discussions especially the spontaneous groups, were very profitable."

"The interaction was exceptionally good. These seemed to permit those members with similar interests to group together for more intimate 'gives and takes.'"

"In terms of group growth through interaction it was good to feel a part of a group of people who had somewhat similar goals, objectives, interests, background and training. Some were open and receptive; some were perhaps a little defensive; all were physically tired. But it was a nice place to relax, and you permitted us to be ourselves."

"In thinking about another year I would hope that we could have more rather small informal discussion groups. It seems to me that in these situations the more minor or trivial problems can be cleared and differences discussed so that the total group can move more efficiently".

B. LARGE FORMAL LECTURE DISCUSSIONS

"This might have been sub-grouped a bit. It was informal enough, I'd say. There should have been an opportunity for group processes each day, perhaps. Eating in small groups the normal way might have been better than the large table situation."

"Excellent"

"Helpful. We should continue the interdisciplinary approach. Are we ready for an emphasis on anthropology and socialization (social psychology and sociology)?"

"This provided a wide range of value, dependent on the lecturer." Suggest more informal discussions to follow up formal ones.

"Reasonably good. I would suggest that small "formal"--at least planned and publicized sessions be added. Perhaps films and tapes could be scheduled for specific times. The participants could then choose which they wanted to attend."

"These were all good."

"Very good."

"In some instances dominated by a few. After formal lectures it would have been valuable to break into small group occasionally."

"The choice of authorities was excellent."

"This was very helpful and especially effective in promoting self-examination and enrichment."

"Good meat which I needed. All of these were quite easily digestible!"

"These were well planned and all seminar members were allowed 'equal time' for questions and/or comments."

"Intensive use of consultants might have retarded groupness growth. Very well organized with central focus--the consultant."

3. IN TERMS OF STATE-WIDE DIRECTIONAL GROWTH THROUGH A BETTER UNDERSTANDING OF EACH OTHERS PROBLEMS

"This was perhaps one of the strongest points of the seminar. A greater knowledge and understanding was certainly wrought between the various colleges and universities."

"The Seminar pointed out the need to communicate with other instituations on the common purposes for Kentucky in the spread of understanding of how humans develop."

"Realizing common problems has been helpful, especially since the Seminar was both public and parochial school oriented. This has been only a beginning to the communication which needs to continue."

"We could have worked more here and been more directional in our group discussions, but with our open communication that you proposed Friday, this will broaden the gap in reaching each other and establish common goals--considering our individual differences, of course!"

"At this point--not much contribution in this area. I think a continuing workshop of this type is really desirable. Definite plans should be made to continue some kind of contact with others in the field."

"Some understanding has taken place, more is needed. I think continued effort in this area would be most beneficial."

"Shortage of time was a handicap here."

"There was not time enough for presentation of programs and concerns."

"The opportunity is opened for communication."

"Somehow, at this point, I don't see state-wideness yet. I think it can come, but there need to be some other Seminars here. I feel understanding of problems isn't the issue here. There are some techniques to be learned on how to do this child study business before those here go out and lead others to do."

4. IN TERMS OF THE EXTENSION AND/OR DEVELOPMENT OF CONCEPTS, PRINCIPLES AND ASSUMPTIONS INHERENT A HUMAN GROWTH PROGRAM

"It was helpful to have these reaffirmed."

"The presentations were at a high level. Many participants revealed a prior understanding. How much development or extension takes place remains to be seen."

"The presentation on human physical growth was excellent."

"Excellent presentations."

"Especially the presentation on physical development (real understanding of physical growth might help prevent emotional problems.)"

"Dissemination of common terms for communication if nothing else is important and has definitely taken place."

"This is an excellent means of keeping the group up to date with research and introducing the participants to so-called 'authorities'. In the future, we should have speakers from the related fields-sociology, anthropology, etc."

"The motivation I received here in helping students as well as teachers in our education system in Bowling Green, Western, Kentucky State College, and Warren County to get a broader view of these concepts plus an emphasis on the new (backed by definite study and research in the multiple areas) sends me to the fields."

"The Seminar provided a better understanding of the wide scope of learnings needed for adequate communication of developmental concepts to potential teachers."

"I do believe that each of us began to think in terms of, not only our own situations and problems, but of the direction the entire program for the state should assume. I had been content to believe that we have a good program at our college Kentucky State College and I think this is true. I think, however, that we have much to share with and learn from the others. To me this could be the real gain to be had from the conference."

"These concepts will be adequately extended, I believe, because they were presented to the seminar members with much conviction."

5. IN TERMS OF THE SCOPE OF THE PROGRAM OF THE WORKSHOP

"The scope of this workshop was astounding. But perhaps a bit more accent on the development of speech and language could be made."

"The scope of the conference was fine for the first one. I think that now we can plan to be more exploratory and pursue more experimental and creative channels."

"I felt the content presented by consultants a good framework for discussion."

"This provided a good opening of new areas. If there is another Seminar, it should focus on some one area in which research and thinking is not readily available in literature--cognitive, creativity, values."

"The scope was broad and varied."

"The scope was broad enough. The next step might be deepening some phases of the scope--such as interpretation of a child's record."

"Scope was broad but some items should have gone into more depth."

"Too much was attempted in too short a time."

"I felt the scope was too broad--we went into some areas rather deeply, others were merely hinted at. Ideas were left hanging--perhaps this was intentional?"

"Helpful--well focused."

"The inter-disciplinary approach is a must. If possible, a tentative list of topics chosen from various disciplines should be presented to prospective participants of a future seminar in order that areas of need and more recent developments in research be identified."

6. IN TERMS OF THE METHOD OF CONDUCTING THE WORKSHOP

"Excellent, atmosphere of genuine warmth, acceptance, understanding."

"The method of conducting showed great artistry on the director's part. I would hope he could have another seminar."

"Superb--excellent leadership. The personal warmth and humanism of the leader probably the one factor responsible for the workshop's success."

"An atmosphere of congeniality, friendliness. The personalities involved were pleasing."

"Since this is my first seminar experience, I can't make a comparison, but the ease of the conductor made me feel good and quite comfortable at all times."

"The diversity of sessions, while somewhat unsettling at times was useful--perhaps because it unsettled the participants."

"Competently conducted with maximum use of facilities."

"In terms of conducting the workshop I want sincerely to commend all involved."

"Very satisfactory. Very well accomplished."

7. IN TERMS OF INSTRUCTIONAL STAFF

"The staff was so good and so varied we were absorbed in getting all we could from them. I needed this support for increasing independence."

"The greatest!"

"The Seminar provided varied and wide range of experiences from consultants in several fields."

"The instructional staff was excellent and present a broad intrest-range. Next time I'd go for Kelly, Mead, Combs, Morgan we might use one or two curriculum area specialists to make application."

"There was a wide range of interests in presentations."

"Excellent"

"Very good"

"There was high quality and a good balance between physical and psychological experts, all emphasing the combination of these many factors in human growth."

"I can speak for second week only. Very good!"

"Varied from fair to excellent--well selected so as to show different, even opposing points of view. In the event there is another conference, I'd suggest Kelley, Mead."

"All filled their assignments well and gave excellent presentations."

8. IN TERMS OF THE ENVIRONMENTAL FACTOR

A. HOUSING--LOCATION IN CITY
B. FACILITIES AVAILABLE
C. SERVICE PROVIDED
D. RECREATION

Most of the participants were satisfied with the location, however, many of them recommended a rural setting (e.g., the state parks) should there be a future seminar. They felt that this would contribute to group cohesiveness. The participants were generally satisfied with the facilities and the services provided and made valuable recommendations for improvement in these areas.

9. IN TERMS OF TIME FACTORS

   A. DURATION
   B. TIME OF YEAR
   C. SCHEDULE (DAILY)

The evaluations submitted by the participants were not in agreement concerning the duration of the seminar. About half felt that two weeks was the right length of time and the other half felt that, with an accelerated tempo, the results might have been accomplished in one week.

The participants agreed that the month of August was the only feasible time for the seminar because of the various college calendars. Several of the participants felt that the daily schedule should have provided more free time for informal interaction.

10. IN TERMS OF WHAT I CONSIDER THE MOST SIGNIFICANT CONTRIBUTION OF THE WORKSHOP

"It opened up lines of communication among us, especially in the opportunity to speak freely on a basis of mutual respect, or from a point of view which many did not share. I believe we realized on a new level that our interest in children is a bond which makes thinking in terms of 'their schools' and 'our schools' pretty absurd."

"The sharing period on books, films, tapes, etc. plus the open communication will really help me."

"I gained personal enrichment through self-examination. The workshop was informative and stimulating, as well as thought provoking in content area. It provided excellent opportunity for association and interaction with collegues."

"I especially valued meeting with people locally (statewide) and learning what they are doing. Same thing on a national basis."

"The Seminar provided the beginning of a definite program of a child development in Kentucky which may go on to fruition or may not. See that there is continuity, if possible, an on-going. We've had a lot of one-shot business in Kentucky before on other things."

"Perhaps this is the beginning of a concerted program for improvement of child study in Kentucky."

"It gave us an understanding of the scope and content of human development for teachers."

"The workshop provided a good opportunity for self-examination."

"Especially significant were the demonstration of the dynamics of group interaction and the gathering together of persons with mutual concerns."

"The Seminar gave me the opportunity to interrelate with people having somewhat common concerns but varying backgrounds."

11. IN TERMS OF MY OWN BACKGROUND OR EXPERIENCE

"It made me aware of some of my own needs, especially keeping up with research and anthropology."

"A good extension. I was glad for more information and stimulation, did not encounter radically new information or attitudes."

"I need more orientation."

"I felt greatly enriched and inspired to seek further enrichment."

"I became more aware of the work currently being carried on in the field."

"It has started me in the right direction. That is, the surface has been scratched and the direction pointed."

"Probably more than anything else, it makes me aware of my personal need to continue some type of further study."

"The workshop pointed out my need for more depth in areas that affect growth in becoming more intellectual and to enrich my own life more as well as those I will communicate with."

"I particularly valued making contact on a person to person basis with others in an area of education and teacher preparation in Kentucky."

"It was a good experience."

"It filled a gap in my background due to my relative newness to the field of teaching human development."

"The information I gained at the workshop will be invaluable in my teaching of speech and language development."

12. IN TERMS OF THE FOLLOW-UP ACTIVITIES

A. SYMPOSIUM REPORT
B. FURTHER PUBLICATIONS
C. PROJECTS AND RESEARCH
D. OTHER WORKSHOPS

While most of the comments on follow-up activities revolved around planning a future seminar similar to this one, there were several valuable suggestions concerning the distribution of a newsletter to share recent developments and research in human growth and development. As a result of the seminar, the University of Kentucky is acting as a clearing house for the distribution of pertinent information to the participants. Also, Brescia College, as a result of the workshop, is beginning a research project in their Speech Clinic. As a result of discussions begun informally at this seminar, Berea College representatives are in the process of working up a proposal for a project in pre-school experiences for culturally deprived children.

All of the participants felt that the seminar should be made an annual event due to the lack of cohesion and communication among those in Kentucky professionally connected with the field of human growth and development.

13. IN TERMS OF THE OVERALL STRUCTURE OF THE WORKSHOP DO YOU HAVE OTHER COMMENTS

"It might have been helpful to have had more advance communication to help shape the purposes and premises of the seminar. I sensed an underlying assumption that improved teaching of human development would result from giving instructors a semi-vaction, group interaction experience. As with class room teaching, more planning, effort, ingenuity, and participation are needed for a creative unstructured program than for a more traditional approach. I suspect that our knowledge of theory is far in advance of our practice, and more specific attention to what we actually do and should do in human development courses would have been valuable."

"The Seminar should have carried University credit."

"I only hope that it can be repeated because I would like to see the definition and delineation of the field of human development as a synthesizing influence in the study of human behavior so that it can make its contribution to human progress toward a better world."

"This project is one of the best uses of public funds evident in a long time. I personally feel that every member returned to his college a better teacher--at least certainly inspired to put forth greater scholastic effort."

"The principles and concepts of human growth and development are relevant to persons other than instructors of courses so labeled. Participants should include more of those responsible for the implementation of this in the total educational process."

ANALYSIS OF THE DATA AND FINDINGS

This particular project does not follow the usual pattern of research: The two weeks of meeting together, listening to presentations by consultants, questioning and discussing, exploring and re-evaluating our own and others' points of view--all of this lies more in the subjective rather than objective realm.

Questions such as how much more effective are we as teachers in this field after this two weeks of living and learning together are hard to answer objectively. The responses made by the participants are remarkably positive. Of course there is a halo effect; and there would need to be a longer lapse of time, with some objective measure of increased knowledge and improved teaching procedure before judgment could be reasonably accurate.

There is some evidence in the psychological literature that, in the attempt to structure and objectify so much of human experience, there might be danger of losing some of the essential qualities of humanness. Subjective, affective experiences are often the most vivid and meaningful experiences in our lives. Getting to know a person on a deeper level, brings understanding of others that will surely make a difference in the way one lives and teaches. As an illustration: There were three Catholic Sisters participating in this seminar. The remaining twenty odd persons were mostly Protestant Christian. The lay people came to know these nuns as real, vital human beings with individual personalities, unique and special like all other human beings. Real personal friendships were established.

Another illustration of the intangibles that defie measurement: Six months after the seminar, one of the participants attended a meeting of representative professors from three universities who were attempting to work out some cooperative programs. As this one professor was being introduced to earlier arrivers he caught sight of a fellow Human Development Seminarist. Is there a way of measuring the delight that shone on his countenance, the warmth in his voice, the heartiness of his hand shake? They knew each other. They could trust each other. And even in differences they could support each other as worthy human beings, facilitating group process and group decisions.

The thought arises that perhaps one of the greatest contributions to enhancing our ability to work in any field, would be an opportunity to live, study and interact with colleagues for a week or two week period. Knowledge is expanding and increasing, doubling in less than a decade in most fields; but reports still indicate that 75 to 80 per cent of jobs lost are because of the inability of the worker to establish constructive, meaningful, interpersonal relationships.

CONCLUSIONS AND IMPLICATIONS

According to the Participants' Evaluation the Seminar was successful in its general objectives.

There is evidence that there was some loss of effectiveness because of the hasty manner in which the program was organized. An even more complete coverage of colleges in the state might have been possible had there been a longer planning period (we had over half of them.) More library materials could have been assembled, including a greater variety of visual materials: films, slides, etc. However, the group did about as much reading, listening to tapes, etc. as was reasonably possible under the circumstances.

The setting of the seminar seemed generally good. The comfortable but close living arrangements made it more possible for a continuous learning experience formally and informally.

The consultants were generally excellent. They gave much of themselves as well as their knowledge. There was much evidence that group members were stimulated toward further exploration in the various areas covered.

The group of participants was an excellent example of heterogenuity: From young graduates to international authorities; from teachers new in the field to those with many decades of experience; from the junior college instructors to the university professors, and on and on. Yet there grew among these people, as the two weeks passed, an ease of communication, an understanding of the uniqueness of each person and his perceptions, and a genuine positive regard for each other that allowed for deep differences of opinion to be lived with comfortably, and in the end established many lasting friendships, which will do much toward increasing the effectiveness of future work at the state level.

The method of procedure in this seminar proved to be generally excellent. The consultants, spaced throughout the two weeks, brought not only the valuable contribution from their particular discipline, but a new personal outlook that served to rekindle participant interest. There was good use of combining talents of participants and consultants. An example was an evening discussion following a panel of three participants and a consultant on the topic, "Teaching of Values - Value Systems." This occasion also illustrates the value of flexibility in a program.

This Seminar was conceived, planned and carried out with established principles of human development and the dynamics of group process in mind. A major concern was that the various teachers of Human Development throughout the state have an increased sense of self worth. From this basic start a feeling of esprit de corps', hopefully, would develop, laying the framework for future work together in building a more cohesive, effective program of teaching in our state institutions of learning. An example of this beginning is an all day meeting of this group expanded to include representatives from other colleges in the state as well as the University of Cincinnati, held on the University of Kentucky campus where various participants presented their class processes as a basis for discussion and future planning.

The implications from this experience are that there has been established high level support between the teachers of Human Development which will aid us in this state in the future in more exploring together on our own, and more time to work out a long term plan involving a design for research as well as increased competence of the teachers. It is hoped that at a later date we can apply for financial help for a long term program. In the interim channels of communication should be established and maintained throughout the state, sharing of resource materials should continue with some thought to creating a central source, and proper committees should be established to continue the plans for the future project.

APPENDIX A

THE BACKGROUND OF PHYSICAL GROWTH: PRINCIPLES AND CONCEPTS

by

**Dr. Francis Johnson, Assistant Director
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Philadelphia 46, Pennsylvania**

THE BACKGROUND OF PHYSICAL GROWTH: PRINCIPLES AND CONCEPTS

Growth may be perhaps most properly defined as the series of events which occur within an organism from the moment of conception until adulthood. In defining this process this way, we emphasize that it is one of change and that it occurs within some framework of time. Perhaps this first concept is the most critical in grasping the essential meaning of growth: it is movement. Any perception of this dynamic process as the mere static attainment of some observable position, at some given moment, fails to understand the fluid nature of these changes. Although it is true that change can only be observed by means of such observations, our end-purpose must be to visualize a process.

This definition also recognizes that growth begins with the formation of the initial cell of the organism. Birth becomes, therefore, a severe trauma which the great majority of infants survive remarkably well, adapting quickly to their new extra-uterine environment very quickly. The definition fails to provide a satisfactory end-point, and this is deliberate; the term "adulthood" contains a variety of value-judgments. Thus the conclusion of growth is rather an open-ended one, recognizing that the timing varies between systems of one organism, between organisms of one species, between species of one genus, and so on. The open-ended aspect is especially true in human growth, in which the increasing importance of behavior factors and neural development are such that changes here may proceed long after the cessation of purely biological increases.

To the observer of human physical growth two aspects stand out: the individual gets bigger, and he is able to do more things. In summing up the various concepts of growth, Meredith notes that there is an increase in cell number as well as cellular specialization; thus, the dichotomy of growth and development. Within this context there is growth to adult size as well as development to adult function. Again, we can present no firm definition of adult function and this must be applied to individual systems, organs or even sites of growth. Just as there are no simple solutions to the problems of the world, neither are there simple answers to problems of human growth.

The above references to certain distinct qualities of human growth as well as the fact that the human species stands at the end, so far, of one line of mammalian evolution leads us to the consideration of why man displays them and what they are. The mimeo sheet, taken from The Human Animal (LaBarre), provides ample evidence, within the Primate order, that man's period of immaturity is the present end of a continuum leading toward slower development. Physical development is also slowed; Schultz has indicated that, relative to the Macaque monkey, the eruption of the first tooth in the Gibbon is 1½ times as late, in the Orang 6½, and almost 9½ times as late in man. Coon has pointed out that the period of growth in lower Primates, in 3 years, in monkeys, 7, and, in apes, 9-11 years.

The facts obviously demonstrate that man is born less mature and grows longer than do the great majority of mammals and all other Primates. The evolutionary meaning of this is just as patent: the acquisition of cultural knowledge, whether it be in the form of technical skills or interpersonal relations, necessitates a training and experimentation period prior to the ejection of the offspring from the next. Since man possesses the greatest inventory of acquired knowledge, a relatively longer period of dependency becomes not only highly desirable but actually vital if this knowledge is to be passed along. Such a period of training has been observed by DeVore and Washburn among Rhodesian baboons, where juvenile play prepares children for their differential adult roles; hence, the young males engage in serious mock fighting, the adult males being the group protectors, but immature females do not.

The biological stimulus for this cultural necessity has been hypothesized by Morris Goodman as being related to the kinds of placentas found within the Primates. There has been an evolutionary trend toward a placenta which would allow for optimum nourishment of the embryo; the greatest expression of this can be found among the higher Primates and provides for the most intimate maternal-fetal relationships. However, this results in the closest associations of the two circulatory systems and means that substances are more likely than ever to cross the placental barrier. This creates the possibility of harmful immunochemical reactions. Since the presence or absence of the antigens is controlled by the genetic material, natural selection could reduce this danger by reducing the genetic variability within the species. However, since such variation is desirable from an evolutionary standpoint, another alternative is the delay of maturation of all systems, save those essential for fetal life, until after birth. The result would be an immature, helpless neonate, dependent upon others until biologically ready to cope with its environment and destined to remain dependent through a period of cultural indoctrination.

Thus, growth and development is itself purposeful and functional. Each event is controlled by a series of factors with hundreds of millions of years of evolutionary heritage.

As a process, human growth may be thought of as being very orderly, but at the same time, exhibiting considerable variation. This means that generalization is possible, but that analysis is necessary. Thus, Tanner demonstrates that, where observer error can be adequately controlled, the measured height of a given child will not differ from the expected by more than three millimeters during the pre-adolescent growth period, when fitted to a curve, $h = a + bt + c \log t$, where h = height and t = age. On the other hand, Meredith has shown that "highly significant" inter-correlation coefficients between increments of various dimensions are few. This variability, which will be emphasized throughout this presentation, is due to differential effects of both intrinsic and extrinsic factors, and is basically related to three parameters: the shape of the growth curve which adequately describes the increments through time, the rate at which a dimension grows, and the intensity of expression at a given moment on the curve.

At this time, perhaps we should explore more fully the meaning of some of these basic terms. If growth is progress toward a final size and development progress toward final functional efficiency, then maturity is this final efficiency and maturation is its dynamic pursuit. All of these terms are only valid within the context of variability. The human body ceases growing when all sites of growth either stop producing new cells, or when the balance between cell proliferation and cell destruction reaches equilibrium. Here we must eliminate increases which are not related to the growth process, such as the addition of fat with age, and the increase in muscle with exercise. Within such a framework we may say that growth ceases about 25 years of age with the closure of the sternal epiphysis of the clavicle. However, the cessation of growth at other loci, resulting in the attainment of adult size in other dimensions, occurs earlier. Thus stature is practically adult in the late teens in both sexes with the closure of the epiphyses of the long bones of the leg. The dimensions of the cranium are effectively adult by 10 years though the adolescent spurt may result in a somewhat longer head due to the enlargement of the supraorbital ridges. The justly famous Scammon's curves show us the general scheme of things.

Since different systems mature at different times, we change in shape during growth, as reflected by proportions. This has been dramatically shown by the German Stratz.

In the same way that there is variation in physical attainment, so there is variation in the attainment of maturity, as a functional concept. A girl is theoretically sexually mature now by her early teens (though she may be only occasionally fertile, as shown by Montagu, until her twenties) even if societies place their own limits upon the emotional maturity necessary for marriage. Other systems mature much earlier, some even pre-natally.

The fact that by the end of adolescence most biological systems in man are both functionally and dimensionally efficient at a suitably high level permits us to say that man has a growth period of about two decades. What this, in effect, means is that a great deal may cease before this time, but not too much goes on afterward.

Just as there are differences between various species of animals, there are differences between the sexes within a single species. These differences are found in the rate of growth from as soon as we can measure it to its end, and in size from adolescence onward. Sex differences in the rate of maturation have been demonstrated in mice, and it seems that this is a general mammalian phenomenon. In man, Tanner and his associates have noted that children with Klinefelter's Syndrome (XXY), mature at a rate equivalent to normal males, while those with Turner's Syndrome (XO) mature at a normal female rate. Hence they hypothesize that the retardation in maturation rate of boys relative to girls is brought about by the action of the Y-chromosome. At any rate we know that this is a fundamental difference and one which is readily observable at birth. The size differences are not marked until adolescence, though there are certain dimensional rate differences (e.g., Tanner notes that the forearm grows faster in boys relative to the upper arm than in girls) that are unrelated to adolescence. Except for these few exceptions, however, sex differences in size and shape are generally a function of either the timing or the intensity of the adolescent spurt.

The phenomenon of adolescence is, itself, a vital part of the growth process. It is apparently initiated by the hypothalamus and signals a generalized spurt of growth and maturation activity in which practically every part of the body participates. Along with this dramatic increase in growth, there is also a signal for its stoppage. Thus the skeleton displays a greater amount of growth, but, at the same time, the epiphyses commence to close, at which time linear growth ceases. This cessation comes about primarily through the maturation of the gonads and the increased secretion of the adrenal cortex; though the precise mechanisms are not fully known, they act by speeding up the entire process of growth and maturation.

This, therefore, becomes the primary conceptual framework in which our examination of the biology of growth and development must be carried out. We must recognize the concept of motion, growth being a dynamic process toward a genetically-determined goal by means of a series of environmentally-mediated events. We must also recognize the concept of order, which permits generalizations to be made as predictions to be carried out. Finally, we must recognize the concept of variation, which reflects the many aspects of the process, as well as the dependence of the organism upon the outside world. With these three concepts firmly in hand, we may analyze this process more completely without becoming bogged down in any of the common mis-conceptions.

THE MEASUREMENT AND EVALUATION OF PHYSICAL GROWTH

Having characterized growth as being orderly movement, but displaying variation at several levels, we are ready to proceed with the actual observation. Such observation necessitates careful measurements which will enable descriptions, increments and comparisons to be learned.

Measurements of growth should be chosen carefully; any single dimension might provide a useful method of describing, but might not say anything about growth. One concept in growth measurement is that of "metrical parsimony"; a measurement is parsimonious if it crosses a minimum number of growth loci, thus, the restriction of actual sites of growth measured eliminates, to some degree, the sometimes-misleading effect of combining various mechanisms. On the other hand, it is sometimes quite useful to measure a dimension which arises from a great number of individual loci, in order, e.g., to determine some manifestation of the organism as a whole. However, if actual mechanisms are combined too indiscriminately, the results can be non-informative or even misleading.

As examples of this we might cite the measurement of the length of the tibia. There are only two loci involved here, one at each extremity, and each one grows by epiphyseal mechanisms. This is a parsimonious measurement. We might also measure stature, to which the tibia makes a significant contribution. In one sense, this dimension is not parsimonious since it represents the sum of many growth loci throughout the body. In another sense, however, practically all of these loci grow via ephipyseal mechanisms, with exceptions generally in the skull. Since there is evidence that epiphyseal centers, though responding individually to separate genes, are also under the control, as a group, of other presumably genetic factors (Hewitt) this represents an excellent composite dimension of growth of an audodiondral type. Stature and weight are the two most common measures of growth. Stature we accept as being very informative of epiphyseal growth; weight we reject without additional information for it represents a composite measurement that is as poor as stature is good. The mass of a body is composed of many components, none of which is delineated by weight. We may first partition weight into a fat and a fat-free component. This is presumably close to the lean body mass, a measurable entity _in vivo_. The lean body mass may be broken into muscle and bone components. The individual variation, as well as the age-linked variation in these components, is such that weight, by itself, yields little useful information on their contribution.

In measuring growth we work within four broad parameters of description: _size_, _shape_, _composition_ and _rate_. (It is proposed to discuss the first three now and the last at a later presentation.) Working within the context of these four parameters we can describe, analyze, evaluate and compare growth in either composite or parsimonious dimensions. The problem lies in the proper selection of measurements to adequately serve the purpose.

Growth in size actually is composed of two factors: linear growth and lateral growth; the two are not necessarily related. Linear growth of any tissue is closely related to skeletal growth by means of epiphyseal mechanisms. Lateral growth of non-bony components is not necessarily related to bony components (e.g., Baker *et al*, 1958). Lateral skeletal growth is largely periosteal and rather independent of epiphyseal mechanisms (except in shoulder and hip regions).

Linear growth is adequately represented by a measure of stature and arm length. As it can be seen growth in stature is amazingly regular before adolescence, expected minus observed differences being less than 3 minutes. This regularity permits a highly successful graphic representation by the equation $Y = a + b+ + c\log t$, where *t* = time. The acceleration at adolescence necessitates the addition of a second curve (unless complicated computer-derrived equations are used); the regularity permits this representation by a Gourpertz curve and completes the graphic picture of growth in height.

Any such curves relating age to attained size are called *distance* curves because they measure only the distance that a child has travelled for groups of children, such curves may be constructed from cross-sectional data, *i.e.*, the observation of each child only once. This sample is therefore composed of children of all ages. These are valuable in constructing size standards for comparisons. However, it is erroneous to utilize differences between the sizes at successive ages at the growth increment for that period since many significant aspects are concealed. Such incremental data may only be obtained from longitudinal studies in which the same children are seen periodically and the composition of each age group is therefore identical. Mixed longitudinal data are intermediate solutions which are basically longitudinal, but with some additions or deletions through the growth period. Graphs of growth increments provide us with velocity curves which actually show the rates at which children are growing. Such graphs may be obtained from the first derivatives of the distance equations presented above.

It should be emphasized that weight is a basic and necessary measure of growth; however, the criticisms presented above demonstrate that, by itself, it serves little purpose because of its many, varied components.

Growth in lateral dimensions can be determined by measuring body breadths. Of particular importance here is bi-acromial and bi-cristal (or bi-iliac) diameters which are effective measures of width of the shoulder girdle and the bony pelvis respectively, and bi-trochonteric diameter, the greatest breadth of the hips. This measurement has been shown to be well correlated with both weight and body. Other standard measures, such as chest breadth and depth, may have a reasonably firm theoretical basis but are methodologically difficult.

It is well to digress here to note that methodological practicability is an important prerequisite of any measure of growth for if the variance due to observer error is great, any theoretical value of the dimension itself is lost. Any dimension therefore becomes a compromise between that which is theoretically sound and that which is practical.

Measures of a breadth factor can be obtained from the bicondylar breadth of the femur and the bi-epicondylar breadth of the humerus.

An estimation of body fat is best obtained radiographically but comparable estimates, rendered less acceptable primarily by a relatively high observer error, are possible by the measurement of skinfolds, which correlated well (+.88) with x-ray measurements. Good standards are available.

Muscle may be measured by means of circumferences corrected, at that site, for fat, (this assumes a constant amount of bone--an erroneous assumption, but one which does not introduce too much actual error) or directly from x-rays.

Thus size and composition may be determined with reasonable accuracy without committing the error of combining unlike mechanisms to the point where the results lose their meaning. Measures other than the ones described are also possible depending upon the purpose. The rule to be followed is simple: determine just what is to be measured and then use a dimension to measure it, making it similar, if possible, to those used by others to permit comparison and making it of such a nature that the observer error is as small as possible.

Shape is best analyzed by the use of indices of proportion and I would here mention the following: (1) Sitting-height index; this is the ratio of sitting height to stature and one which is easily taken and biologically meaningful. There are significant differences between the sexes, during growth and in some forms of growth dysplasia. (2) Shoulder-hip index; this utilizes bicristal and bi-acromial diameters and again displays age and sex differences. (3) Cephalic index; this ratio of head breadth to head length is time-honored in anthropological circles and, while it might not reveal what it once was thought to do, has been shown to be very responsive to certain illnesses. (4) Weight-height relationships; as the two most popular anthropometric measures, naturally the greatest number of ways of describing shape revolve about their use, comparing linear growth with increase in mass. The earlier studies have been reviewed by Krogman, who found these two parameters can give valuable information if interpreted conservatively. Earlier methods of expressing desirable or standard "weight-for-height" tables have given way to "auxodromic" approaches which allow children to be followed serially. Though Wetzel, in particular, lays an attractive theoretical foundation for such a way to control growth, Garn and Krogman have demonstrated that this way of following children does not exert as much control as had been previously believed. In addition, Baer et al, have shown that the Wetzel Grid overemphasized weight at the expense of height. In spite of these objections, height and weight combined can yield useful information on the shape of children or of groups of children.

The body composition of the developing child is a recent concern of researchers who have realized that mere surface measurements alone are often not analytic enough to fit into our concept of metrical parsimony. The importance of this was recognized early and x-ray measurements of the body provided basic information. It was soon learned that fat, muscle and bone vary in their contribution to the human body through time. For example, the muscle spurt at adolescence in boys is accompanied by a fat loss; girls show less of a spurt and no loss of fat. The use of skinfolds has greatly facilitated the comparison of fat to the lean body mass and equations are available for translating their values into body density and from there to fat. The triceps skinfold has been shown to be a "practical and accurate estimate of adiposity" in adolescent boys.

THE CONTROL OF GROWTH

If, as we have mentioned earlier, we consider growth as the process of reaching maturity, it is an obvious fact that this is a genetically-governed one. The chromosomes contain within themselves all of the information necessary to complete the development of the individual. However, they carry only the information--it is necessary for them to have something with which to work and this can only be provided by the environment. The prolonged growth period of man increased the importance of the environment. Therefore, there is a constant and a continual interaction between these two broad area throughout not only growth, but also the life cycle itself.

The basic genetic control of growth is not only theoretically sound but also empirically demonstrated. Garn (1961) has summarized much of the work so far carried out and has shown correlations between parent and offspring in size and rate of growth. For example, as one would predict, tall parents have tall children and vice versa, and parents with large bony chest diameters have children who weigh more, and are taller than children of parents with small bony chest diameters during much of their development. Many other correlations in various parameters of growth exist between parents and their offspring, or between siblings. Reynolds (1943) showed the highest correlations in skeletal maturation between monozygotic twins (.71), with the order thereafter being siblings (.28), first cousins (.12) and unrelated random pairs (.01), the final coefficient not being significantly different from zero.

As interesting and even intriguing as these correlations are, they are merely statistical associations and do not truly tell us of the genetics of growth. We are a long way off from attaining this and must fall back upon the construction of theoretical models. However, one such model has recently been advanced by Tanner (1963a; 1963b) which hypothesizes a way in which the rate of growth is controlled. This hypothesis is based upon the observed "catch-up" in growth which occurs from a mis-match between two substances; the first is a "tally" substance, consisting of a steady increase in the amount of a substance, most logically in certain nerve cells. The growth curve can then be represented, at any one time, by some function of the concentration of this substance. The second substance, probably, according to Tanner, acting at the brain level, would accumulate proportionately to the size of the organism. The degree of mis-match between the time tally and this second, or inhibitor substance causes the release of growth-stimulating factors. The rate of accumulation of the time tally would be an inherited characteristic; the rate of inhibitor accumulation would be dependent upon the amount of the first and the mismatch. A cessation in general growth, caused by an illness etc., would cause a mis-match comparable to an earlier time and an increased growth rate; as the expected mis-match is reached the growth rate would slow down. The degree of mis-match would, in normal children, always remain at or near the expected, and no drastic catch-up would be necessary.

One additional aspect must be covered if the model is to correctly represent observed events. At a given signal, the time tally shifts to a secondary substance in greater concentration, which causes a greater mis-match and, hence, a spurt of growth. This would be adolescence. The placement of this switching signal could explain early and late adolescence. When the switch is made early, the mis-match is greater, and so we have the more intense spurt of the early maturer. For the slow maturer, the reverse is true. According to Tanner, our knowledge of mammalian physiology makes it tempting to identify the hypothalamus as the site of the time-tally.

Unfortunately, this is as close as we can get to the solving of the inherent control of growth at present: a meter of statistical correlations and an intriguing model which needs much empirical testing.

Our knowledge of the effects of extrinsic factors is much more complete. There are masses of studies on the nutritional requirements of growing children and the effects of malnutrition as well as the effects of supplements upon the malnourished. Out of these pages of data emerge several pertinent findings: (1) Malnutrition retards growth in general. By this we mean that the child is smaller in practically all of his dimensions and remains reasonably normal in proportion. This normality of proportion is true for linear dimensions, at least. For breadth dimensions, the great loss of stored fat causes a reduction in such aspects as subcutaneous tissue to the point where some peoples of the world (e.g. New Guineans) actually have skinfolds which correspond only to the thickness of the skin. If the malnutrition is severe enough, muscle and cortical bone can also be affected. This means that weight tends to be more severely retarded then height. Dean found, in African children, that weight reduction could be as much as 40% and more, but height was only retarded about 7%. In malnourished children from Alabama, it was found that this lag was evident by three years. Many other studies confirm this; for example, the work of

Jonna Faulhaber with Mexican children. This effect also extends to those dimensions which grow by Scammon's neural curve. A recent study of 100 Turkish children with nutritional deficiencies revealed that head circumference was reduced by about ¼ in 60% of the cases. If we consider Thalassemia Major to be a severe form of malnutrition, it can be demonstrated that head breadth is affected more than head length.

The effect of malnutrition upon skeletal maturation is also interesting as well as crucial in the problem of recovery and of the ultimate height. Acheson has found the effect upon height to be greater than that upon skeletal maturation. This means that the final height is much more likely to be stunted. Severe malnutrition causes severe retardation, in another sample of Turkish children divided into four degrees of malnutrition, the least malnourished showed skeletal ages that averaged 89% of the normal (i.e. 11% retarded) and the most malnourished showed S.A.'s near only 40% of the normal, or 60% retarded.

Whether or not a true sex difference exists in the ability of a child to withstand environmental deprivation is not completely clear. The majority of studies point toward a greater retardation in the males than the females. In Alabama malnourished children, the growth retardation in females levels off and remains constant from 3-years, but becomes progressively worse in males. The above mentioned Turkish children followed a similar trend in retardation of skeletal maturation: boys consistently more retarded than girls. In Thalassemic children, likewise, the boys are more retarded. These same observations hold true in other parts of the world as well. However, some British studies have shown that the environment affects girls more; these are in the minority. Logic points to the boys as being more susceptible; their growth periods are longer and their adult height is dependent largely upon a more intense adolescent spurt so that the adverse environment would have a greater chance to affect the boys. Acheson feels that the key may lie in the differential effects of skeletal maturation: the girls, not being as skeletally affected, mature at a nearer normal time and end up shorter. The boys, because of the S.A. retardation, have their growth periods lengthened and in this time can make up some of the difference.

The seasonal affect on growth is also well established, Reynolds showing that linear growth and skeletal maturation have maxima in the Spring, but that weight-increments are greater in Autumn. Tanner remarks that there is considerable individual variation between children in the amount of the seasonal effect. A recent interesting article by Slater, Watson and McDonald describes the analysis of 9,951 children with congenital anomalies and found that, although seasonal differences were generally the exception, there were some interesting winter-summer patterns. Whether these differences are actually true and not statistical chance remains to be tested further.

One of the most interesting aspects of growth is the secular trend. For as far back as records are available, the trend is for children to be growing bigger at a more rapid rate. Tanner reports the average gains between 1880-1950 for American, British and Swedish data are about 1½ cm. and ½ kg. per decade until 5-7, then 2 cm. and 1½ kg. till adolescence and 1 cm. per decade thereafter. The age at menarche has been decreasing at about 4 months per generation for the same period.

The reason for the secular spurt is not completely clear, though improved environment ranks high among the possibilities. Acheson (1964) feels that better environmental conditions are "probably the most important" single factor in the secular trend since the father-son differences are greater in lower than upper classes. However, Craig (1963) has demonstrated in 7,541 Scottish boys no such clear-cut difference. As Bakwin (1964) points out, it is difficult to ascribe the secular spurt purely to nutrition since there has been no severe food shortage in Western Europe for a century; this is accentuated by the fact that, regardless of its relative magnitude, there has been a striking increase even among the highest classes.

Another complicating factor is noted in that the secular spurt is contrary to what would be expected from an evolutionary aspect. Truly, this is an interesting area and one which requires much further research.

APPENDIX B

THE CONTROVERSIAL ASPECTS OF NURSERY EDUCATION AND CHILD DEVELOPMENT: POTENTIAL PROBLEMS FOR THE FUTURE

by

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THE CONTROVERSIAL ASPECTS OF NURSERY EDUCATION AND CHILD DEVELOPMENT: POTENTIAL PROBLEMS FOR THE FUTURE

Nursery Education is a booming business. Today more children in the United States go to some kind of preschool than has been true of any other time in the country's history. Private schools, cooperative schools involving parent participation, church sponsored nursery schools, public nursery schools sponsored by government and recreational institutions, and day care programs have all boomed and snowballed in the last twenty-five years, and now nursery schools for underprivileged and culturally deprived youngsters are on the rise. Educators forsee, in the not too distant future, a time when all children will have had a year or two of school before the ages of 5 or 6, and some children as much as 3 or 4 such years. For a field which is progressing at a phenomenal rate, which is still relatively young, and which suffers from a lack of consistent and strong leadership because of its several areas of sponsorship, many problems have always manifested themselves, and even though the future holds answers to some of these, new ones are cropping up at an amazing speed.

With its early beginnings founded in the discipline of child development, and used at first for a laboratory through which certain child development principles could be tested and checked out, and later with new beginnings founded in the rise of day care centers during the war years, seen primarily for custodial care of children while parents worked, nursery education itself has only tried in the last thirty years to be recognized as a discipline or field of study in its own right. The development of such recognition has brought with it numerous problems, some of which seem sometimes unanswerable.

For What Purpose Should Nursery Education Exist

One of the first problems that besets this field is "what is its purpose?" Implicit in its title is the word education which indicates that its major or primary function is to educate children; yet there is evidence all around us that many, many such schools do not see nor know how to educate. They see as their primary purpose the care of youngsters, the discipline or the love of them, but a well-formed curriculum with bodies of information to transmit are not seen as necessary or important.

Ever since WPA days there has been a struggle to overcome the idea that anyone under some circumstances can become a teacher of young children. With World War II the role of the day care center as a program for the poor began to change toward service to a more privileged group. The demands for numbers and the attempt to meet changing needs unfortunately strained the professional effort to the point that efforts slackened to spell out what a quality program is, and buyers began to settle for inferior programs. The problem has been further compounded by the phenomenon of the "disappearing teacher." Many prospective teachers have been going into kindergarten and elementary schools where salaries are higher.

When parents are asked why they send their children to nursery school, mothers usually answer: "To have the opportunity for the children to relate to other children of the same age." Fathers often answer: "To give the Mothers a break." And a highly vocal minority sees the nursery school as the first step to Harvard.

The National Association for Nursery Education, founded in 1931, for the purpose of promoting interest, study, and contributing positively to the well being and good education of young children, is not a curriculum setting organization, and though it indicates in its policies and procedures what it believes nursery schools are for, it has no way at the present time of seeing that all schools carry out its suggestions. Also, not all schools belong to this organization. Other organizations such as the National Parent Cooperative, the National Day Care Association, or the National Association for Private Schools have standards and suggested policy, but again have no way of enforcing these for all schools. The Child Welfare League of America has taken a lead in enforcing education as a must for nursery schools, but again it is not an overall agency for schools. With many different organizations all in the business of promoting good education for children, yet with conflicting ideas, often the dilemma for the small individual school is apparent--where will it get help; what kind of help; and who will carry through?

Standard Setting and Licensing

Another equally important dilemma, and going along closely with the first, is that of standard setting and licensing of nursery schools. Since there is not one organization doing this, schools are allowed to exist with the poorest of health and sanitation standards, with too little space for the number of children as well as too little equipment and adult supervision for the number of children. Fees can vary from very little to an amount that would almost put a child through college! In practically no other profession is this true. A doctor, lawyer, educator or minister must all adhere to certain standards and practices or have his license revoked, but in the field of nursery education, anyone who loves little children, or needs money, can bring a group together and call it a nursery school. Since more and more nursery schools are developing, this problem gets magnified every time a poor one comes into being. In some states and cities the Department of Health and Welfare does the licensing. In some it comes under the jurisdiction of the welfare or adoption agencies; in others, members of the school board are given this assignment, but in a good many no one agency or organization is responsible, and every person operates his school in his own way.

Teacher Training and the Multi-disciplinary Approach

Whereas in other professions the trained personnel comes out of schools or departments with curriculum especially tailor-made to promote knowledge about the subject, this is not true in the field of nursery education. Even in the most well run schools, or the laboratory schools connected with colleges and universities, the teaching staff who are trained come from a variety of disciplines and backgrounds; some may offer a limited amount of experiences with children, but many do not offer direct contact with children in groups at all. Today's teachers come primarily out of Home Economics, Psychology, Education, Child Development, some few from Sociology and Social Group Work. Thus, differing amounts of emphasis will be given to the individual or the group depending on the background and training of the individual teacher. Since there are few places that offer a degree in nursery school education as such, many teachers prepare themselves for teaching in the elementary schools but are seen by potential employers as good bets for working with very young children.

A serious obstacle in improving U. S. education generally is the inadequate supply of well-qualified teachers. During the 1960's teachers' salaries slowly crept upward and starting pay is "respectable", but maximum salaries are still comparatively low and excellence is not adequately rewarded.

Salary Scale

As long as there is no standard setting organization and no conformity in kinds of nursery schools over the country, there is no one place to which a person can turn to find a salary scale. In no other profession is the turnover in staff as great. Salaries are notoriously low for nursery school teachers, and many can make about two to three times as much by teaching even in the kindergartens. Where salaries are somewhat higher, the teachers usually have additional jobs such as administration, clerical or in the case of the college, a child development course to offer college students as well as teaching the children in the nursery school.

Beset with these somewhat external problems, the field of nursery education has many internal problems as well--even supposing that every school could be the very best, with well-trained teachers, good salaries, maximum standards in every way, and set up to give the best kind of education.

Child Development: Parent and Problem for Nursery Education

The problems of nursery education are not products of the nursery schools themselves; they stem from a larger even more problem filled field--that of child development from which they originally sprang. The controversial aspects of this field are many, and to discuss them all would take much too long. Alternately it is seen as the savior of children or the "empty-field" because it can never give "definite answers", but relies on a theory of individual differences with something different all right for each child, depending on his individual case. Parents and schools are at the mercy of the swing of the pendulum which is very rarely based on any adequate data from research. Other than in the areas of physical and nutritional growth, we have very little data to support such things as whether nursery schools are good for children, whether children should or should not be spanked, or how much of a father's time is needed.

Again the disciplines of medicine, psychiatry and psychology, sociology, social group work, education and anthropology have all had a say about what makes for the best kinds of growth and development in children. A parent today can pick up a morning newspaper and get one kind of childrearing advice, and an evening paper and get another, go to a public lecture to hear an "expert" and get another, and pick up one of the many women's magazines and get still different advice. As one speaker put it, it is indeed possible to be a pal to your children in the morning and be a good parent, be mildly friendly, but firm at noon, and be a good parent, and beat the hell out of them at night, and still be a good parent.

Many areas within child development have never solved age-old problems: discipline still seems to be the greatest of these. Most speakers in this field get more requests for this topic than any other. Where can we actually turn to get good data and accurate information on the disciplining of children? Who really knows what a spanking does to a child--what about reasoning--can or should parents always be in agreement--what is the father's role--what relationship does discipline have to juvenile delinquency or lack of it??? Just recently I read that our whole permissive era was a lost cause because the delinquency rate is the result of it, and just as recently I read too that a group of child psychiatrists feel strongly that the turn of the pendulum away from permissiveness is a grave error and will make for psychological wrecks in children. Whereas Crest has found how to have 36% fewer cavities, we have not found how to have fewer or more of desirable products by following any one course.

There is the age-old dilemma of what to teach young children. What should they know by the time they are five, and how much of it should parents teach and how much schools. Even these best schools we were projecting have no guides for curriculum--if the children are to do more than "just play" what should the more be? Should the school teach values--which ones and whose? Should they be an extension of the home--whose homes and what kind? If parents teach values, suppose they conflict with the schools? And how long does a child need to have his mother with him for most of the day? At what age should children start school psychologically--some parents want to send them at 1½ or 2, but most schools won't take them until 3 or 3½. Who is right, and where can we find out what really happens to the child if he leaves home for schooling at various ages?

While the field of child development presents these problems and a lack of answers, nursery schools continue to grow without any real evidence that they do something good for children. Where is the research that conclusively proves that children who have had nursery school are much better off than those who haven't? And who should decide who should go to school? Should the parent, the doctor, the school, or the psychiatrist? Should handicapped children go to special schools; what happens to young children if they are around handicapped people? Should gifted and retarded go together at the preschool ages? Whereas one authority may say that this is the best time and way for children to learn about such things, another may say it will harm him psychologically for life--to whom shall the parent, the teacher, the nursery school turn?

Slow Change and Traditional Views

Although the child development pendulum swings back and forth without the contributions of other disciplines, there has not been a great deal of change in the field over the past thirty years--nor has there been a great deal of change in nursery education. Nursery schools today look and operate very much as they did when they started, and there is a sameness about them if one travels over the country to have a look. All have roughly the same kind of equipment, the same schedule, admission procedures, and the same kind of teaching staff, usually young women out of college for their first teaching experience, or older women who have been in the field often too long and are major mothering influences, but little more. They have not even kept up with the controversy in the field of child development and nursery education.

Getting Up-to-Date

The major problem facing the fields concerned with young children today is similar to those facing the field in the beginning--how to offer sound research evidence for facts that parents and teachers can act upon, and at the same time allow for the belief in a true theory of individual differences. There must be a happy medium in the view that the field has only to say, "each child is different" so whatever anyone decides is really right, or to say "Here are the facts; they are solid, indestructible, and if everyone uses them, they will come out with a sure-fire product." Getting up-to-date implies that we must narrow the gap between these theories, and truly isolate those facts that are useable, and find a way to make them so to all people.

The Controversies

Let's just take a look at some of the unanswered questions in some areas of the child's growth, so we can better illustrate our dilemma: I am projecting only a few of the problems.

Physical

In this area perhaps we have the most sound research and the most actual information about physical growth and development and nutrition. However, there are still many conflicting facts:

1. For many years we have learned that children should be encouraged to use large muscles first, then small. Recent research from Denmark and Sweden indicates that it would be better if children were encouraged in reverse fashion, that they are ready for much fine muscle development very early. What a problem such evidence could pose for all our nursery school parents and play companies who design equipment on the basis of large muscle development--where is good evidence for the answer--not just a few small studies?

2. Psychiatrists think they have solved the problem of handedness--thst is not changing a child from left to right hand, etc., becuase it may harm his psyche--but eye experts have made small studies that indicate there is a definite necessity for hand and eye coordination not to be crossed, and the child who is left handed but right eyed (and apparently this is possible) should be switched early. The pendulum may swing again, but on the basis of what well-proved facts?

3. Even though we know a great deal about the kinds of foods that make for healthy growth, the whole area of nutrition presents a problem. For many years it has been considered unwise to force children to eat; therefore, what do we do with the child who doesn't eat? Do we jeopardize his nutrition in order to protect his emotions or do we see that he gets his basic seven and run the risk of a later psychological food problem?

4. When should adults be disturbed about children's growth? At what age should parents and teachers be advised to seek help if children don't sit up, walk, speak, etc.? Some pediatricians feel that normality in these processes can extend even up to the fifth year, others feel that if by the end of

the first year most of these developments are not observable, there is room for concern. Where is adequate material to be helpful to us?

5. American children are considered the most unphysically fit children in the world. Physical fitness tests showed them to be way behind youngsters in other countries. At the same time, research showed that most middle class American children spend from 3½ to 6 hours a day watching television, even during the school year. How do we solve the dilemma of the tremendous impact of television on our culture and the simple need for physical exercise of young children?

Psycho-social (emotional)

1. No area in the field of child development has caused so much concern and swung back and forth with the pendulum as much as discipline. The topic most requested by parent and teacher groups for discussion is the whole subject of permissiveness versus traditional rearing of children. We have absolutely no sound research or proof that one method of child rearing produces any better results than the other. We all know children whose basic home environment was authoritative, even punitive, directive and firm, and children who almost "grew themselves" because of lack of authority and direction. We all know children who were spanked, threatened and bribed, and those who were reasoned with, and we know that with both sets of children there were the successes and the failures. We have not been able to weed out the individual variables that really make the difference. If we could, we would then rear a generation of children free of all the ills of society.

2. Today, one of the greatest subjects of controversy in the whole field of child development and nursery education is what to teach children about other people. The dilemma posed by what to teach about human differences and racial and ethnic backgrounds is a most real and timely one. It is not one that can be avoided since children and their surrounding adults are confronted by it daily through the newspapers, television and by government recreational and education institutions. Many professionals would like to avoid this issue by conceding that children between the ages of one and six are not ready for teaching or experience in these subjects, and that we will only harm their psychological development if we consciously confront them with these social concerns.

   Recently, Dr. Spock, in an article on human relations and children, said "teachers must make more use of their key position as the new authority in children's lives."

And another author has said that "we must consider educating children for lives concerned with other than themselves. To allow a child to assume that his rights are of paramount importance is to seriously and dangerously mistrain him for community life".

For those who believe that children don't know or feel prejudice in the preschool years--that they genuinly like everyone, and are non-rejecting--a list of statements compiled by a sociologist contradicts such theories. These were made by three, four, and five year-olds, in several preschools:

a. Don't touch him; he's got Jewish hair.
b. Niggers can't come here; they make it dirty.
c. Catholics are stinky; they think they know it all.
d. Don't touch her hair--it's wire, and will cut you.
e. President Kennedy is worser; flush him with a B.M., he'll make the country catch on fire and burn to the ground, and we'll all have to go in space.
f. Let's don't invite him; he's fat and ugly.
g. The slums people live there; they eat flies and rotten eggs.
h. I hate black boys; they all bite.
i. My mamma says he goes to the bad boys Sunday School where the Jews are.
j. He can't climb the bar--he has that bad thing in his ear--we can talk up there and he can't hear us.

And some others:

a. They won't play with me until I turn whiter.
b. She's a B.M.; she's a Jew-girl.
c. He won't take my hand until I get all the brown off, and that'll be about a billion years.

And still others:

a. When you're little and pretend, it's all right for everybody to play together; it's just when you get old that you can't, if your skin is different.
b. What's an Italian--do they wear a tail?
c. Jesus hates niggers and Jews, but Santa Claus will take care of them.
d. Mamma says some white people are okay, but Daddy says not to trust any of them.

Where can we find good material to help us decide how we should deal with such attitudes?

3. Despite the large number of psychiatrists, psychologists and social group workers who are trained to give help to troubled families, we still do not have answers, nor do we know what

to teach children about crises situations. Where is research or the expert who can really tell us what we should tell the children about divorce, handicapped people, the one-parent family, illness, poor people, etc.? There is much controversy about these and yet they are the common every-day social consequences of our society.

4. The one area in which there has been almost total agreement and lack of controversy has been the necessity for a strong mother-child relationship in the early years. Most literature tells us that for the first three to five years mothers should be in the home and set the attitude patterns of children. Where, then, is the answer to the conflict which society presents by the startling figure that there are, right now, 9,300,000 working mothers, a 73% increase in the last ten years? And this figure is on the rise! Will literature change and report that mothers are no longer needed in the home? Or will children change and no longer need their mothers at an early age? The fact remains that nursery schools and day care centers are rapidly increasing because working mothers must have care for their children when it is necessary to be out of the home.

5. We have learned in recent years that where a child is placed in his family makes a difference in his ultimate growth and development. The conflict presented by a society that allows freedom in family planning contrasted with the knowledge that middle children or youngest boys may not turn out as well as older girls or children from large families is one that is dealt with rarely.

6. Another tremendous controversy in the field of child development is in the whole area of sex education. It is difficult to find two experts, or two concrete research reports, giving the same information. Many professional persons believe that children should be educated early and honestly about their bodies, birth and sex relations. However, individuals concerned with moral development and those concerned with the great rise in illegitimacy and sexual promiscuity believe that a return to the "good old days" with Victorian outlook on the subject would produce a healthier society. Who, then, should the parent or teacher turn to in order to give children sound sex information?

Spiritual

1. Basically child development has told us that religion is a subject for the home, but then has not given the home firm guidance in dealing with this subject. As in the area of sex, many adults feel uncomfortable transmitting concepts about God and religion to children, but psychiatry and

psychology have failed to be supportive . There are those who believe that at an early age religion and God cloud the child's ability to deal with his environment and place him at an emotional disadvantage. Others maintain that a strong belief in religion and a God gives the child the greatest possible amount of security. Neither the clergy nor the psychiatrist has the answer for us.

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These are but a few of the controversial problems in child development and nursery education. New ones appear daily, and in 1964 a whole new range of problems is now developing in the area of education for the culturally deprived and disadvantaged. Questions about how and when children should be educated, whether they should be integrated with middle class children, whether they should have middle class teachers, whether their parents should be educated at the same time, all are part of this dilemma.

Child development has been greatly criticized because of its language and its spelling. Many people feel that it is full of educational jargon which is unmeaningful to the lay public and much of the profession. Such terms as "developmental tasks", "sense of autonomy", "ages and stages" and "creative development" are some of these which many specialists feel are dressed-up terms for plain old growing up.

The entire scope of education of young children presents the greatest controversy. If, as some people feel, the main business of the day is to educate children for democracy, then shall we drop everything else, and, if so, where shall we find a curriculum for democracy? Obviously, the field suffers greatly from a lack of research. We not only don't know whether nursery schools in fact do anything good for children, or whether mothers working out of the home do anything bad for children. We still don't even know for sure what we believe about spanking children--and this we were considering in 1870, 1910, 1930 and continue to consider in 1964.

Few professions draw from so many disciplines and have the problems of integrating so many differing kinds of evidence and facts.

My hope is that among some of you here there are firm, solid answers to many of these questions, so that at least some of the dilemma of child development and nursery education can be solved in your seminar.

APPENDIX C

EDUCATION AND THE INTERPERSONAL IMPACT: IMPLICATIONS FROM PSYCHOTHERAPY AND COUNSELING RESEARCH

by

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EDUCATION AND THE INTERPERSONAL IMPACT: IMPLICATIONS FROM PSYCHOTHERAPY AND COUNSELING RESEARCH

Psychotherapy and counseling research has direct implication for those of us who are concerned about the interpersonal impact of the teacher in today's educational systems. The psychotherapeutic or counseling relationship which involves basically a highly intense two person encounter, serves us a relatively controlled laboratory for the study of interpersonal relationships.

Properly speaking, education is partly, but not primarily, a process in which the teacher imparts knowledge and the student learns facts, principles, or content. If this were the sum and substance of education, then quite obviously a teaching machine would efficiently and economically replace the teacher. While it is true that a large number of teachers spend a large amount of time simply reciting knowledge (lecturing), this is perhaps the teacher's least important function. Certainly once the student has learned to read, he could read and therefore learn much faster than the teacher could recite. Indeed, even quite poor readers can cover knowledge more rapidly than a lecturer who recites at 25 to 40 words per minute. In fact, we could not argue that the average teacher has any secret knowledge that he or she alone could impart, and which is not presented, and in a very organized fashion, in written textbooks.

Perhaps the unique and even primary function of the educator lies in the area of the interpersonal impact. It is the teacher's responsibility to provide the "conditions" which will facilitate the development of the child into a motivated and even creative learner. More than that, the educator will facilitate positive attitudes and interests and even enthusiasms towards the subject matter and content of knowledge, and hopefully, the educator by providing effective "conditions" will facilitate the development of a person who can thoughtfully and judiciously apply both the knowledge of content, the knowledge of problem-solving, and the knowledge of how to learn to the complexities of modern living.

Recent and extensive research into the processes and outcomes of psychotherapy and counseling point up the significance of the "facilitative conditions" which are characteristics of helping relationships which produce constructive behavioral and personality change in the client or patient. These same findings also demonstrate that when these conditions are not provided or when they are provided at only minimal levels, these intended therapeutic encounters have deteriorative effects upon human functioning.

There is also some evidence that the patients or clients who comes for counseling or psychotherapy are end products of a sequence of interpersonal relationships that have failed to provide these "facilitative conditions." In a very real sense the client or patient who seeks help from the therapist or counselor has failed not at algebra, spelling, or arithmetic (though often he fails there too) but has failed in the much more complex and demanding area of social living. He has failed to master the specific skills, has failed to acquire the appropriate attitudes, the ability to solve problems, and the capacity to thoughtfully and judiciously apply knowledge to living, so that in the end he fails at dating and heterosexual relationships, employee-employer relationships, peer group relationships, and the whole gamut of learned behavior that leads to successful living.

Until recently, the phenomenon of psychotherapy or counseling has been little understood. The interpersonal impact of the therapist or counselor was as little known as is currently the interpersonal impact of the educator. In fact, the efficacy of the psychotherapist was in considerable controversy, so that the phenomenon of psychotherapy could well have been characterized as was Galen's Samian Clay, the wondrous powers of which were promoted as follows: "All who drink this remedy recover in a short time, except for those whom it does not help, who all die and have no relief from any other medicine. Therefore it is obvious that it fails only in incurable cases."

In this respect too the position of the psychotherapist or counselor is not unlike that of the general educator. What makes a good educator? Is it only mastery of content? What kinds of educators have positive or facilitative interpersonal impact and what kinds have deteriorative or destructive interpersonal impact? Recent research has approached this simple question in psychotherapy by asking "What are the effective ingredients in the psychotherapeutic process which lead to constructive behavioral change in the patient." This is the Gordian knot facing researchers and practitioners not only in psychotherapy, but in the general and broader field of education. Among all that happens throughout the course of education, what elements contribute to the student's constructive growth and development and what elements inhibit this process of personal maturation? It seems certain that not all the educator does in the teacher-pupil relationship is constructive. Just as in the case of psychotherapy or counseling we feel with a deep certainty that while most educators are helpful most of the time, a great deal of effort is wasted.

Let us turn now specifically to recent psychotherapy research which has direct implications for the educator.

A Model for the Interpersonal Impact

Focusing our theoretical and research interests upon the question, "What are the effective elements leading to constructive personality change," of itself, leads us towards a general model for study of the interpersonal impact. This model is the theory of the general linear equation, which is also the basis for most parametric analyses of data (32).

Using this model, the task for research and theory is to specify the essential elements or variables of the helping relationship, which successfully predict observed constructive change in clients (or students).

The model is then:

$$CPC = K + \text{Variable}_1 + \text{Variable}_2 + \text{Variable}_3 + \ldots\ldots + \text{Variable}_N + e$$

Where "*CPC*" is the observed degree of constructive personality change:

Where *Variables* 1 to N are observed degrees of elements 1 to N of psychotherapy and,

Where "*e*" is the residual error term.

Once the given variables are discerned the empirical problem is to establish constants, B's or beta weights, which will satisfy the actual equation. Thus the model becomes:

$$CPC = K + \text{Variable}_1\, B_1 + V_2\, B_2 + \ldots\ldots + V_N\, B_N + e$$

The problem is to estimate the regression coefficients or B's by the usual statistical procedures. The significance of a given regression coefficient can be evaluated by the usual variance ratio by taking the sum of squares of deviations about the estimated coefficients.

The use of this model will yield the smallest number of elements of psychotherapy possible. This is, in such a model, the criterion measure of constructive personality change in the patient would be expressed as a linear function of the psychotherapy variables, and, each psychotherapy variable could be tested for the significance of its effect in the resulting equation. Using this procedure, the variable with the highest single significant correlation with the criteria would be given the largest weighting; the test would, then, be of any *additional* contribution of succeeding variables. This procedure would automatically give us the minimum number of independent psychotherapy variables necessary to account for constructive persionality change in the patient.

Thus, this model offers the advantages of simplicity and economy.

It also has the advantage of making no assumptions about the nature of psychotherapy, the nature of personality, or the nature of personality change.

It has the advantage of excluding no past or future theories of the "dynamics" of personality change. It is simply an empirical model.

The use of such a model begins with variables of psychotherapy pointed to by current theoretical contributions.

In spite of the bewildering array of theories and practices in psychotherapy, there have been some recurring themes in many of the theoretical formulations designed to describe effective psychotherapy. Psychoanalytic theorists such as Alexander (1), Halpern and Lesser (13), Ferenczi (9), and Schafer (28); client-centered theorists such as Dymond (8), Jourard (17) and Rogers (22, 23), as well as eclectic theorists such as Fox and Goldin (10), Hobbs (15), Raush and Bordin (21), Strunk (29), and Strupp (31) have stressed the importance of the therapist's ability to sensitively and accurately understand the patient. They have emphasized that the therapist accurately and empathically know the client's "being" and respond in such a manner as to communicate this deep understanding. Also, they have all focused on the importance of non-possessive warmth and acceptance of the client by the therapist and have emphasized that the therapist be integrated, mature, or genuine within the therapeutic encounter. These three elements of the psychotherapeutic relationship are aspects of the therapist's behavior which cut across the parochial theories of psychotherapy and appear to be common elements in a wide variety of psychoanalytic, client-centered, and eclectic approaches to psychotherapy. Rogers (23, 24, 25) has perhaps gone further than the other theorists in specifying that these three kinds of therapist behaviors were collectively both necessary and sufficient conditions for constructive growth.

I would like now to turn to some research evidence bearing upon the four therapist behaviors or "conditions" hypothesized to relate to constructive personality change. These are the current variables that constitute a beginning attempt to specify the essential elements of effective interpersonal impacts and thus a beginning attempt to specify the variables in the linear equation model.

The specific research bearing on the essential "conditions" for constructive interpersonal impacts attempted to relate measures of the three therapist conditions derived from tape recorded psychotherapy sessions, to measures of change in the client's personality and behavioral functionings derived from psychological pre-test and posttests, and from the criterion of hospitalization.

Focusing on the Therapist

Accurate Empathy

The first step was the construction of a reliable scale, the Accurate Empathy scale (33) which took as its starting point theoretical descriptions by Rogers (23) and others. The scales were applied by trained, otherwise naive lay raters who could reliably rate the extent of accurate empathic understanding by the therapist which occurs in samples of recorded psychotherapy taken from completely recorded cases of psychotherapy. The scale was designed to measure a conception of accurate empathy which involves the sensitivity to current feelings and the verbal facility to communicate this understanding in a language attuned to the patient's current being.

The scale itself is a 9-point scale attempting to specify the stages along a continuum. At the lowest stage, stage 1, the definition of therapist behaviors include such statements as, "The therpist seems completely unaware of even the most conspicuous of the client's feelings. His responses are not appropriate to the mood and content of the client's statement and there is no determinable quality of empathy, hence no accuracy whatsoever." At stage 3, the therapist's behavior is defined as, "therapist often responds accurately to client's more exposed feelings. He also displays concern for the deeper, more hidden feelings, which he seems to sense must be present, though he doesn't understand their nature." At stage 5, the therapist "accurately responds to all of the client's more readily discernible feelings. He shows awareness of many feelings and experiences which are not so evident, too, but in these he tends to be somewhat inaccurate in his understanding. His misunderstandings are not disruptive by their tentative nature." At stage 7, the therapist "shows awareness of the precise intensity of most underlying emotions. However, his responses move only slightly beyond the area of the client's own awareness, so that feelings may be present which are not recognized by the client or therapist." Finally, at stage 8, the therapist "accurately interprets all of the client's present, acknowledged feelings. He moves into feelings and experiences that are only hinted at by the client and does so with sensitivity and accuracy. The therapist offers specific explanations or additions to the patient's understanding so that not only are underlying emotions pointed to, but they are specifically talked about," and at stage 9, the therapist "unerringly responds to the client's full range of feelings in their exact intensity. He expands the client's hint into a full-blown but tentative elaboration of feeling or experience with unerring sensitivity and accuracy. He is completely attuned to the client's shifting emotional content; he senses each of the client's feelings and reflects them in his word and voice."

The lay raters using the scale have been trained on other recorded samples in the use of the scale, and the scale itself is, of course, much more complex in its specifications and includes a number of actual examples taken from psychotherapeutic interaction. Further, the naive lay raters, who are unfamiliar with psychotherapeutic theory (most of them are bright college undergraduates with B+ or better grade), are trained on other data to a criterion of minimal self-reliability indicated by an intra-rater correlation of .50.

As can be seen from the examples, "accurate empathy" has much in common with the "good psychoanalytic interpretation," in that it makes use of both verbal and nonverbal cues presented by the patient. It differs from some good psychoanalytic interpretations in its insistence that the therapist's empathic response focueses upon feelings and experiences of the patient from the patient's own unique viewpoint. Still, it should be recognized that virtually all responses at stages 7, 8 and 9 would be considered by most psychoanalysts as "good" interpretations.

In order to determine whether or not this conception of empathy was related to therapeutic progress in the initial stages of psychotherapy, four patients who showed clear improvement and four patients who showed deterioration on a battery of psychological tests after six months of therapy were selected. A total of 384 samples of tape recorded psychotherapy were randomly selected from the first six months of therapy and then coded so that the raters would not know whether a sample came from a test-improved case or a test-deteriorated case, or from an early or late interview. The findings of this study were clear in showing that psychotherapy received by test-improved patients rated consistently higher on accurate empathy than the psychotherapy received by test-deteriorated cases ($p < .01$); also, very low ratings tended to occur primarily in the test-deteriorated patients while very high ratings of accurate empathy occurred almost exclusively in the test improved group (Chi Square for distribution, $p < .01$).

In an effort to test further the relation of accurate empathy to successful psychotherapy, a second study involving 14 hospitalized schizophrenic cases and 14 counseling cases from the University of Chicago and Stanford University was completed using 112 samples of recorded psychotherapy from early and late interviews. Accurate empathy ratings, again, were significantly higher for the more successful cases than for the less successful cases ($p < .01$). Also, the positive relationship between accurate empathy and outcome of the therapy held for hospitalized schizophrenics and for counseling cases. Thus, the same "condition" or psychotherapeutic element was relevant for both populations. The more successful cases are typified by many high accurate empathy responses by the therapist, while the less successful cases have many more average and low accurate empahty ratings (Chi Square for distribution, $p < .05$).

More recently, trends in the levels of accurate empathy for schizophrenics covering a time span from six months to three and one-half years of therapy have been investigated. One four-minute tape recorded sample was taken from every fifth interview for each of the 14 schizophrenic cases available. Five naive lay raters were trained to rate the 297 samples selected in an unbiased fashion from every fifth interview of each case.

Analysis of the 1,489 ratings showed that cases with the greatest constructive personality change are indeed those with the highest average levels of accurate empathy. A Pearson correlation between the mean level of accurate empathy for each case and the final outcome criterion (which included psychological test change data, diagnostic evaluations of personality change made "blind" by two diagnosticians[1] unconnected with the research, and a measure of the hospitalization experience after the beginning of therapy) was .77 ($p < .01$) and for diagnostic evaluation of psychological test change, the correlation ($p < .01$) and for diagnostic evaluation of psychological test change, the correlation was .48 ($p < .05$).

In a further analysis of this data, basal and altitude levels of accurate empathy as well as range of empathy in each case were correlated with outcome. Both the basal and altitude levels in accurate empathy were significantly related to case outcome ($p < .05$) while for the relationship with range (the three highest minus the three lowest ratings for each case) the Pearson correlation was clearly nonsignificant, being -.04. It should also be noted that the data indicated no tendency for therapists to systematically change over time in the level of accurate empathy offered to the patient. That is, there was no overall tendency for therapists to become more empathic throughout the course of therapy or for any other systematic change to occur; the level of accurate empathy established early in therapy remains essentially the same throughout the course of therapy.

These studies indicate that the level of accurate empathy offered by the therapist to the patient throughout the course of therapy is indeed related to the outcome of constructive personality change in the patient. When the therapist deeply and sensitively understands the feelings and experiences of his patient, and is able to communicate this understanding, the the patient shows positive gains in personality functioning.

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It should be noted that accurate empathy, as here conceptualized, is not a "non-specific relationship factor" nor simply an "attitudinal" variable. While it clearly does incorporate some aspects of a therapeutic atmosphere, it requires the sensitivity and skill of being able to understand verbal and nonverbal cues presented by the patient, as well as the attitudinal demands of intending to understand the patient from his own unique viewpoint.

Unconditional Positive Regard

As a precondition for the therapist's ability to deeply and accurately sense the patient's current feelings and experiences and for the patient's ability to use this accurate empathy in the process of his own self-exploration and experiencing, the therapist's nonconditional warmth has appeared theoretically crucial. Unconditional warmth can be seen as a "nonspecific relationship factor" or as an "attitudinal variable" which is itself a precondition for the trusting relationship assumed to be necessary for the patient's use of accurate empathy and the process of self-exploration.

A scale built upon earlier work has been designed to measure the degree of nonconditional warmth for use with samples from tape-recorded psychotherapy sessions (34). The Unconditional Positive Regard scale is a five-point scale attempting to define five stages along the continuum of therapist's nonpossessive warmth. At Stage 1, the therapist " ...may be telling the patient what would be 'best' for him, or maybe in other ways actively either approving or disapproving of his behavior. The therapist acts in such a way as to make himself the locus of evaluation and the therapist sees himself as responsible for the patient." At stage 2, the therapist "responds mechanically to the client and thus indicates little positive regard and hence, little unconditional positive regard. The therapist may ignore the patient where an unconditionally warm response would be expected--complete passivity that communicates almost unconditional lack of warmth."

At stage 4, "the therapist clearly communicates a very deep interest and concern for the welfare of the patient. Thus, evaluations of thought and behaviors are for the most part absent ... except that it is important to the therapist that he be more mature or that he not regress in therapy or that the therapist himself is accepted and liked." Finally at stage 5, the therapist "communicates unconditional positive regard without restriction. At this stage the patient is free to be himself even if this means that he is regressing, being defensive, or even disliking or rejecting the therapist himself. The only channeling by the therapist may be the demand that the patient communicate personally relevant material." Thus, at higher levels the therapist is willing to share equally the patient's fears and hopes or achievements and failures, without placing conditions upon the warm acceptance of the patient's inner being.

In a study applying this scale on positive warmth to the samples of psychotherapy taken from every fifth interview with the 14 schizophrenics, it was predicted that the therapists of the more improved cases would be rated higher than those of unimproved or failure cases.

This prediction was supported by the statistical analysis of the data, which showed that samples from improved cases were consistently higher in unconditional positive regard than samples from unimproved or failure cases ($p < .05$). Thus, nonpossessive warmth appears to be an effective ingredient in the psychotherapeutic process; the greater the level of unconditional positive warmth offered by the therapist during the course of psychotherapy, the greater the evidence of constructive personality change.

Therapist Genuineness

Accurate empathy and unconditional positive regard or nonpossessive warmth intertwine in a logical fashion that suggests that the achievement of a high level of accurate empathy is dependent upon first obtaining at least a minimally high level of non possessive warmth for the patient. To be deeply sensitive to the momentary "being" of another person requires of us as therapists that we first accept and to some degree unconditionally prize this person. However, neither of these two conditions could function properly without the therapist being himself integrated and genuine within the therapeutic encounter. At high levels of self-congruence or genuineness this means that the therapist does not deny feelings and that he be integrated and genuine within the therapy hour; it does not mean that the therapist must burden the patient with overt expression of all of his feelings--only that he must not be ingenuine. Genuineness is not taken to mean only the element of self-awareness, but also the presentation to the patient of a real person in the encounter. There is always a temptation t o present a facade, a mask of professionalism or some type of confessional-professional screen, i.e., the temptation to be ingenuine as a person.

Thus, perhaps most basic to the formation of a trusting relationship between patient and therapist is that the therapist act within the therapeutic hour as a "genuine" person. Theoretically, neither accurate empahy nor unconditional positive regard could function properly without the therapist, himself, being integrated and genuine within the therapeutic encounter. Based upon the descriptions of Rogers and others, a scale has been developed to measure the degree to which therapist self-congruence occurs within psychotherapeutic sessions (35).

This scale is a 5 point scale attempting to specify stages along a continuum of therapist genuineness or self-congruence.

At stage 1, "the therapist is clearly defensive in the interaction and there is explicit evidence of a very considerable discrepancy between his experiencing and his current verbalization. Thus, the therapist makes striking contradictions in his statements ... or, the therapist may contradict the content ... with the voice qualities ..." At stage 2, "the therapist responds appropriately but in a professional rather than in a personal manner ... there is a somewhat contrived or rehearsed quality or an air of professionalism present." At stage 4, "there is neither implicit nor explicit evidence of defensiveness or the presence of a facade." Finally, at stage 5, the therapist is freely and deeply himself in the relationship. There is an openness to experiences and feelings by the therapist of all types--both pleasant and hurtful--without traces of defensiveness or retreat into professionalism."

Again, the scale involves examples and additional specifications. It should perhaps be emphasized that the ratings are based upon how the therapist "appears" in the samples. That is, while the rater cannot know whether or not the therapist is "being himself," he can decide whether or not the therapist is acting in a manner that seems to be a "real person" or whether by contrast, the therapist seems to be putting on a "front."

Three naive raters were trained in procedures for using the Therapist Self-Congruence scale. These raters then rated each of the four-minute samples taken from every fifth interview from the group of schizophrenic patients. Analysis of the resulting data showed a significant tendency for the therapist in improved cases to be rated higher in genuineness or self-congruence during the therapeutic sessions than therapists in non-improved or failure cases ($p < .01$).

Thus the predicted positive relationship between the level of therapist self-congruence or genuineness in psychotherapy and the amount of constructive personality change occurring in the patient was confirmed; the greater the level of therapist genuineness, the greater the evidence of constructive personality change in the patient.

It should be noted that the ratings on each condition in these studies were done "blind" in the sense that the judges were given coded samples so that they did not know whether the sample came from early or late in therapy or from a successful or unsuccessful case. Also, a majority of studies employed naive raters who had no systematic knowledge about psychology or psychotherapy and so would have few of the built-in biases often found in judges; they simply rated randomly coded four-minute samples of psychotherapeutic interactions according to the specific definitions of the explicit scales used to measure the variables. Thus, the studies provide very strong evidence to support the theoretic view that each of these therapist-offered conditions are related to constructive change in the patient.

Since all conditions together are considered to be essential ingredients of successful psychotherapy, analyses have been completed comparing therapy cases rated high on all conditions with both control patients receiving no therapy and therapy cases rated relatively low on all conditions.

The therapy and the control patients were first matched on the basis of age, sex, socio-educational status, degree of chronicity, and degree of disturbance, and then by a flip of a coin, one patient was assigned to therapy and one to control conditions. A total of 14 schizophrenics receiving therapy and 14 matched control cases were analyzed in terms of change in overall psychological functioning based on complete batteries of psychological tests given initially and later. A more elaborate description of the design has been presented earlier by Rogers (26).

For Better or for Worse

All accurate empathy, unconditional positive regard, and therapist genuineness or self-congruence ratings from the studies reported earlier were examined and mean values for each case computed. The hypothesis was that patients receiving high levels of conditions would show greater constructive personality change while patients receiving low levels of conditions in therapy and the control patients would show less constructive personality change.

The initial test battery and the latest test battery for both therapy and matched control cases were given to the same two clinical psychologists for a "blind" analysis of change in level of psychological functioning. The clinical psychologists made primary use of the Rorschach and the MMPI in the assessing of change, although the total test battery included the Thematic Apperception Test, the Wechsler Adult Intelligence scale, the Anxiety Reaction scales, the Stroop Tests, the F-Authoritarian scale, the Q-Sort and the Wittenborn Psychiatric Rating Scales. These diagnosticians made their analyses without knowledge of whether a patient was a therapy or a control patient or whether a given therapy patient had high or low conditions.

The results of the study indicated that patients receiving high levels of conditions showed an overall gain in psychological functioning, whereas, patients who received relatively low levels of conditions showed a *loss* in psychological functioning, while control patients showed moderate gains ($p > .05$).

Thus the data suggests that high conditions facilitate constructive personality change as predicted. However, the findings also say that patients who received *low conditions showed negative personality change*. This is indeed a very sobering finding: *psychotherapy can be for better or for worse*.

Another study with the same design was conducted to check specifically the relations between conditions offered in therapy and the change in anxiety experienced by the patient. The Anxiety Reaction scale, consisting of the three factors of Interpersonal Anxiety, Somatic Anxiety and General Anxiety, had been administered to each patient both early and late. The data of all three sub-scales showing a clear tendency for those patients receiving high conditions to show a drop in anxiety level, while

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those patients receiving low conditions show an increase in anxiety level. The controls show almost no change. The differences between the three groups reached statistical significance on both the measure of Interpersonal Anxiety and on the measure of General Anxiety ($p > .05$).

When the Q-Sort for self data on the same patients was analyzed, an even more disquieting finding appeared. The self concept of the patients receiving high levels of conditions and the self concept of the patients receiving no therapy both show a slight tendency for better adjustment from early to late, but the patients receiving low conditions of therapy show a significant change toward less well adjusted self concepts (p. .01). If we relied exclusively on the Q-Sort for self data, we could only conclude that while "good" therapy does not lead to better adjusted self concepts than do control conditions, "poor" therapy leads to maladjusted self concepts.

Similar analyses were carried out on sub-scales of the Minnesota Multiphasic Personality Inventory, the F-Authoritarian scale, the Wittenborn Psychiatric Rating scales and the Wechsler Adult Intelligence Scale. Differences at acceptable levels of statistical significance ($p > .05$) in the direction of the hypotheses, occurred on the Sum of Clinical scales, the Depression Scale, the Psychopathic Deviate Scale, the MF Scale, the Schizophrenia Scale, and the Social Introversion Scale. Statistically significant differences occurred on only three of the 14 sub-measures of intelligence; in each case the low condition group showed a decrease in intellectual functioning. Differences were not found to be statistically significant on the F-Authoritarian Scale or upon any of the sub-scale of the Wittenborn Psychiatric Rating Scales. The scores from each instrument did, however, tend to show a consistent pattern: the patients receiving high conditions in therapy tend to show improvement either slightly greater than or equal to that of the no-therapy control group, while patients receiving low levels of therapeutic conditions tend to show negative personality change.

A study comparing patients receiving high conditions, patients receiving low conditions and control patients, involved the Constructive Personality Change Index which uses items from early and late MMPI's as the measure of personality change. With this measure specifically designed to tap personality change, significant differences between groups were found. The control group showed a moderate positive change, the low condition therapy patients showed a moderate negative change, and the high condition therapy patients showed large positive changes in personality functioning ($p > .05$). Next, the therapy patients were ranked on the amount of accurate empathy, unconditional positive regard, and self-congruence received in psychotherapy and these rankings were compared with their constructive personality change index scores. The rank order correlation (Rho) was computed between the ranking on all conditions combined and the constructive personality change index and yielded a correlation of .87 ($p > .01$).

Thus, altogether, the data using the control group seems to show that patients receiving relatively high levels of all three conditions of accurate empathy, unconditional positive regard, and therapist genuineness tend to show positive gains in personality functioning beyond that usually seen in the matched control group. By marked contrast, patients receiving relatively low levels of all three conditions of accurate empathy, unconditional positive regard and therapist genuineness tend to show negative changes in personality functioning when compared with the matched control group.

These findings, then, suggest that the psychotherapy relationship, much like the traditional marital relationship, can make for a process of growth and actualization or it can mean such things as constriction and regression. It can be for better or for worse.

We have looked at in some detail some specific studies involving severly deteriorated chronic schizophrenic patients, which provide an acid test for the hypothesized conditions. The chronic severely disturbed hospitalized schizophrenic is most resistant to change and is certainly a far cry from garden variety neurotic, or the more normally adjusted eight year old or teenager. In fact, quite recent research has shown these variables, these three "facilitative conditions" to be of significance in a large variety of interpersonal encounters. In working with college counseling cases, Halkides (12), and Barrett-Lennard (2) have indicated that these conditions, accurate empathy, unconditional warmth, and genuineness or self-congruence on the part of the counselor, is strongly related to successful counseling. Quite recently, Bergin and Soloman (5) have followed up the research with schizophrenics with respect to accurate empathy and confirmed the findings in general. Thus, their data indicates that empathy was significantly related to the therapist's ability to produce outcome in outpatients, at Teachers College, Columbia University. Their data went further, in an attempt to relate empathic ability to the personality characteristics of the therapist. One of their more intriguing findings was that accurate empathic ability was, within limits, positively related to the age of the therapist, thus suggesting that a maturational process of life experiencing provides a substrate for empathic ability. Their data also confirmed nicely the idea that personality disturbance in the therapist is related to lowered levels of accurate empathy: negative relationships were obtained with the D and Pt scales of the MMPI which tend to measure subjective discomfort. Somewhat surprisingly, supervisors' ratings of anxiety were not related to levels of accurate empathy, which raises some questions about Bandura's findings. Another finding of considerable interest was the significant negative relationship between intraception on the Edwards Personal Preference Schedule, suggesting that a "cognitive-analytic interpersonal orientation is more akin to interpretive rather than empathic therapist behaviors." In this line the data also indicated a significant negative relationship between need for order and empathic ability. The positive findings with the Dominance Scale perhaps suggest that empathy is related to "freedom from subjective discomfort and perhaps with feelings of interpersonal confidence, both of which may permit the emotional freedom necessary to enter freely and empathically into another person's frame of reference." This latter interpretation fits nicely with the relationship to age. Perhaps the most significant findings in the Bergin and Soloman study have to do with the relationship between training and the levels of accurate empathy actually observed in the therapist's behavior. They found non-significant negative relationships between academic grade averages in graduate school, grade averages of practicum courses in graduate school, and the graduate record examination. Interestingly enough, Bergin and Soloman report no relationship between the therapist's self-reported desire to be empathic and the actual level of empathy observed in the interviews.

More recently, similar relationships have been found in group psychotherapy with such diverse populations as mental hospital patients and garden variety juvenile delinquents. The juvenile delinquents were 14 to 16 year old boys and girls who were not described as "emotionally ill." They were the garden variety of juvenile delinquent who all elementary and secondary educators have known in their classrooms.

The significant fact is that findings with such diverse populations indicate that the same "facilitative conditions" lead to constructive behavioral and personality change: it seems characteristic of the interpersonal relationship, regardless of the type of person involved, whether he be a normal boy or girl who is a problem in classes and in communities or a severely disturbed chronic hospitalized schizophrenic.

In fact, recent attempts to extend these basic findings from the "helping relationship" to learning situations have already born some fruit. In a recent learning study where the researcher was attempting to study response acquisition in a verbal conditioning laboratory study, using normal college students as subjects, Sapolsky (27) found that when the experimenter (teacher) had an incompatible relationship with the subject (the college student) there was virtually no response acquisition (no learning); if the relationship was compatible, then there was response acquisition. Similarly, Weiss, Krasner and Ullmann (39) in another verbal operat conditioning learning study demonstrated in their research that a hostile (non-empathic and non-warm) experimenter or teacher decreased the number of verbal responses and, perhaps most significantly, that there was a marked response increase when the experimenter showered assent and attention upon the subject (the warm, supportive therapist).

Even at the preschool level there is now available evidence concerning the effectiveness of these three facilitative conditions. Truax and Tatum (37) reported a study attempting to relate the preschool teacher's level of (1) positive warmth; (2) empathic understanding; and (3) genineness communicated to the students--on the one hand, to positive changes and on the other hand, to the child's preschool performance. This study, carried out at the University of Iowa's Child Institute produced positive findings. The degree of warmth and empathy was significantly related to positive changes in the child's preschool performance.

No relationships were obtained with respect to the teacher's genuineness. It should be emphasized that in the preschool setting most communications between teacher and preschooler are very brief consisting of a few words and lasting most often, less than a minute. The positive findings were obtained using both questionnaire procedures attempting to evaluate the extent to which these "conditions" were provided by the teacher, and using timed sampling procedures where judges sat behind one-way screens and rated each communication between teacher and child.

The suggestion is, then, that those teachers who are facilitative, who hook the student in a life-long learning process leading to self-direction and self-realization, creativity, effective application of knowledge, effective problem solving, are like the counselor or therapist, those who provide the highest levels of these facilitative conditions. This is not to negate or minimize the importance of the teacher's competence in terms of knowledge of content. It is quite probable that a Nobel Laureate who was destructive in his interpersonal impact would have some positive value to students. However, we would not think of him as an educator. His contribution would be to science and not to education.

Today, there is a growing body of literature directly supportive of the three facilitative conditions which seem so critical for counseling and psychotherapy to the education process (7, 16, 20, 31). It is significant, for example that Willis (40) in her book, The Guinea Pigs After 20 Years, points out that the value of the school program most frequently and spontaneously mentioned by graduates 20 years later was the "warmth and human atmosphere" communicated by the school teachers, i.e., "the friendly relations of the students with each other and with the teachers; the homelike feeling of the school; the school as living as well as learning; there was freedom, but the abuse of freedom was handled in a firm but friendly manner, the classes were small, the atmosphere informal . . ." The next two categories spontaneously emitted included "the genuine concern" of the school teachers and administrators for the individual.

There is also evidence about the generality of these factors in all interpersonal relationships in the growing evidence concerning the facilitative and deteriorative conditions in the parent-child relationship. An inordinate degree of interpersonal conflict, lack of warmth, for example, has been found in the homes of schizophrenic patients (11, 19). The parent-child relationships associated with the development of emotional disturbance have been described as "ingenuine, distant, stereotyped, and defensive (4, 6, 18, 41)" The data on family research relevant to the development of disturbed children indicates that the destructive family tends to use styles of communications which are unempathic, contradictory (ingenuine) and inefficient (3, 38).

What then, are the implications that could be drawn for the process of education?

While more than a full life-time of research will be perhaps necessary to fill in crucial gaps in our knowledge, the present incipient efforts reflect the fruitfulness of our current approach. The model of the general linear equation, using the elements of psychotherapy in predicting changes in functioning, gives directionality to both current and future research. The attempts to newly conceptualize and measure the complex concepts of empathy, positive regard and warmth, and genuineness have led to more explicit definitions and measurements. The task ahead for research involves further specifying the behaviors of the first parties and behaviors of the second parties and evaluating their relevance to successful outcomes. Thus, since it now appears that communication of a sensitive, accurate understanding of the second parties and evaluating current feelings and experiences is related to constructive gain, it becomes important to know which specific behaviors among those now labeled as empathic are doing the actual work of the interpersonal processes. For example, is it the total quality of the voice that is used to communicate deep understanding which is a significant factor, or is it only the understanding? Does it matter whether the second party's own words are used to communicate his understanding, etc.? Is the spontaneity of the first person relevant to outcome?

Present research, then, in isolating certain first person variables of effective interpersonal learning processes leads to even more specific questions for future research aimed at clarifying what the effective elements in psychotherapy are. The fruitfulness of the current research suggests that the same approach applied to other variables specified by different approaches as common elements in all interpersonal learning processes should also prove fruitful.

Through all this, we are ever mindful of Hebb's (14) succinct statement of the mandate incumbent upon the investigator:

> " . . . theory is not an affirmation but a method of analysis and can't produce any belief. Knowledge progresses by stages, so the theory one holds today must be provisional, as much a formulation of one's ignorance as anything else, to be used as long as it is useful and then discarded. Its function is to organize the available evidence and guide the search for better evidence. It is really only a working assumption which the user may actively disbelieve (p. 270)."

Implications of the Present Research

The present findings, while only a beginning step, have important implications for the practice of psychotherapy, for the training of psychotherapists, and indeed for the prevention of psychological disturbances or emotional upset.

The finding that psychotherapy can indeed be for better or for worse is directly relevant to teacher-student and parent-child relationships.

If the current evidence is reliable and a lack of such elements as empathy and warmth lead to deterioration in personality functioning, while a presence of higher levels of understanding and warmth leads to a constructive, positive change in personality functioning, then the model for interpersonal processes may be a reversible model: the model can be used to predict positive movement and gain as well as to predict damaging environmental factors which facilitate negative movement and deterioration.

One possible interpretation of the negative change in the low condition patients is based upon the observation that all psychotherapy focuses upon the malfunctioning or life-failures of the patient. When the therapist is sensitively and accurately able to understand the patient and communicates this understanding in a relationship involving both genuineness and nonpossessive warmth, then life-failures can be explored and attempts at new modes of living can be tried. However, when these elements are not sufficiently present in psychotherapy, we would expect that the schizophrenic patient is left only with a greater realization in his life-failures. The reinforced realization of malfunctioning combined with an inability to resolve life-failures could certainly be expected to produce greater anxiety and a consequent general upsetness or negative change in personality functioning . . . It may very well be that a lack of these three conditions in the patient's environment is what led him to become schizophrenic in the first place. If so -- and the reverse of accurate empathy, unconditional positive regard and self-congruence certainly fits with what we know of the Schizophrenogenic Mother -- then the present findings with psychotherapy show that more poor conditions continue to make the patient worse, not better (36, p. 261).

It is conceivable that school counselors, school teachers and others can become skilled at identifying environmental conditions which offer, for example, a lack of understanding and a lack of unconditional warmth and then take steps to change such an environment in an effort to prevent the predictable ensuing emotional upset or mental illness. Certainly, it seems likely, that if we can identify and quantify these elements in the psychotherapeutic relationship, then using the same approach and tools, we can identify the same elements in the parent-child relationship, the husband-wife relationship, the teacher-child relationship, or indeed in any other human encounter.

In essence this is simply to say that the more we learn about how to help people, the more we also know about how to not hurt people.

There are a number of implications that have relevance to the structure of American education. We are today seeing an increase in the anonymity of education. Thus today's students are more and more becoming lost in an anonymous educational world where teachers come and thus are unable to sustain any long-term interpersonal encounter. It has become more and more frequent throughout the nation for even seventh graders to have not one, but five or six or even seven teachers. This means that a single teacher may have 150 or more different students each year and perhaps more than 300 every two years. The teacher, of course, under such conditions is bound to become less responsible for the overall growth and development of a given student. In fact, she will be lucky if she knows his name, much less his special needs and his current level of development. It may very well be that a more effective educational process would have a single teacher teaching almost all subjects for a class of 30 students over perhaps a three-year period. If that were the case, the teacher would automatically have more responsibility for the child's development and have the time and the opportunity to motivate and educate, rather than just recite. As a very important side effect, if each teacher worked with such a small group of children on a daily basis for perhaps a three-year period, school principals and administrators and even parents could more effectively weed out the destructive teachers and reward the educators who not only are knowledgable but who are also effective in producing students who are motivated knowledgable, and achieving. There has been a great deal of emphasis upon "quality faculty." I am sometimes somewhat puzzled by all this, particularly when applied to elementary, and even when applied to the junior high school level. It is difficult for me to believe that a teacher who is a college graduate cannot master the content area of the fourth grade! It is perhaps more common to find a teacher who systematically inhibits the pursuit of knowledge, who reinforces learning-avoidance and who has an interpersonal impact which leads to deterioration in personality and behavioral functioning of the child, than it is to find a teacher who is ignorant of the content, of say, eighth grade English, mathematics, or even tenth grade biology.

The implications of the research findings dealing with the interpersonal impact have important and significant implications for ourselves as educators. We might ask the question of what these research findings mean to us personally as teachers. They may mean that as educators we could aim towards a more clear and sensitive awareness of the learner's inner being; toward a greater ability to deeply understand the student, his values, his aims, his experiencings, and thus to make accurate meanings out of his communications--and lack of communications.

The findings might mean that we as teachers could allow ourselves to express more openly our deep concern and caring for the person who comes to us as a student; to do this unconditionally would be to set no conditions on the prizing of the person.

The findings may mean that we as educators can afford risking confrontation with the student as a person rather than as an institution: that our open or non-defensive intactness, our human genuineness, encourages the student also to deeply "be himself" within the learning relationship.

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APPENDIX D

FACTORS THAT INFLUENCE DEVELOPMENT, LEARNING AND BEHAVIOR

by

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FACTORS THAT INFLUENCE DEVELOPMENT, LEARNING AND BEHAVIOR

(Included here are excerpts from a tape recording of the talk given by Professor Dan Prescott, Institute for Child Study, University of Maryland. The following outline represents the organizing framework of Dr. Prescott's presentation. The excerpts are from sections 5, 6, and 7.)

1. Organic Factors

    a. Physical handicaps and limitations
    b. Characteristic rate of energy output
    c. Rate and pattern of growth
    d. Current maturity level
    e. Health history
    f. Current health
    g. Health habits
    h. Skill in managing the body
    i. Appearance and grooming

2. Love Relationships

    a. Mother-child
    b. Father-child
    c. Siblings-child
    d. Parents-siblings
    e. Siblings-siblings
    f. Other family members-child
    g. Teacher-child
    h. Special friends-child
    i. Pets-child
    j. Mother-father

3. Socialization (Cultural) Factors

    a. Masculine-feminine carried by child
    b. Rural-urban carried by child
    c. Regional carried by child
    d. Ethnic carried by child
    e. Social class carried by child
    f. Caste carried by child
    g. Social-class mobility
    h. Geographic mobility
    i. Child participation in social institutions

4. Peer-Group Factors

   a. Characteristic activities of the peer group
   b. Customs and codes of conduct of peer group
   c. Roles afforded by peer group activities
   d. Adherence of child to peer group customs and codes
   e. Roles played by child in peer group activities
   f. Status of child in peer group; belonger, leader, clique member, fringer, isolate, rejectee
   g. Mobility of child peer group

5. Self-developmental Factors

   A. The Development of Intelligence

      a. Action relationship to environment
      b. Imagery-relationship to experience
      c. Skill in symbolizing elements of experience and meaning
      d. Scope of experience in child's life-space

   B. Cognitive Processes and Cumulative Experience Meanings

      a. Remembering experiences
      b. Finding common elements in experiences
      c. Observing the characteristics of things, processes and events
      d. Discovering causality
      e. Learning to analyze events
      f. Discovering that one can influence events
      g. Learning to define problems in terms of characteristic factors and knowledge of causality
      h. Discovering alternative solutions to problems and learning to test them for effectiveness
      i. Playing with combining elements of experiences into new combinations to see what one gets
      j. Purposively combining elements of experiences in order to create beauty, or stories or music, or dances
      k. Purposively combining elements of experiences in order to invent needed things, equipment, procedures for accomplishing goals, or new social groupings.

6. Self-adjustive Processes

   a. Situations and experiences that evoke pleasant or unpleasant emotional behavior in the child
   b. The patterning of behavior while experiencing emotion
   c. Adjustment mechanisms most frequently used
   d. Persisting emotional adjustment problems

7. Self-organizing Factors

   a. Attitudes: How one feels about people, events, institutions, etc.
   b. Ethical code: The culturally imposed and individually developed basis of conscience
   c. Values: The convictions that answer for each individual, operationally, the questions: "What am I really trying to get out of and put into life?" "In what do I really believe?"
   d. Purposes and goals: The translation of convictions of value into aspirations and hopes. The translation of aspirations and hopes into long term plans and next step goals

. . . .I have already talked a little bit about (a) under 5, Self-Developmental Factors and Development of Intelligence, stressing the fact that what we get through genetics is the limit of how intelligent we can become. This is a potential intelligence that does not ripen by the simple process of growth, of physical maturity. It is by interacting with an environment that stimulates and evokes that potential intelligence becomes operational. Tying this in with the work of Jerome Bruner and others, noticing that in the world and in our own society there are culture groups that live effectively, for them, on an action relationship for their environment. That is to say, what they learn is a series of skills and ways of dealing with life's needs and with the expectancies and demands of society. These are learned as ways of operating in relation to the world, and they are not analyzed, and they are not symbolized, and so the individual can be said to develop his intelligence on an action basis to the world. All children go through this, but persons can remain at this level as adults. We seem not to have perceived that entering our elementary schools we have many children coming from culture groups that live exactly this way, and that they are not ready to learn to read; and that when we try immediately to teach them to read--before they have learned to talk, before they have learned to symbolize, that is to say, and to talk as a way of communicating--we do nothing except set up a situation in which they fail. And the longer we persist in this attempt to drill spelling and reading into them, the more we reinforce their concept of self as unable to learn to read and to function in this way.

Bruner also has indicated a second level of development of intelligence in terms of an imagery relationship to experience, in which the person recalls experiences in terms of visual imagery or auditory imagery or kinesthetic imagery, and in recalling these is able to combine a number of experiences and to see differences among them and common elements among them. But this is limited. Even though one has gone beyond a simple action relationship to the world and has developed the habit of remembering things in terms of patterns, the gestalts that can overlay one another in terms of memories are limited in number, and therefore the amount of generalization that is possible from this, and the kinds of processes that can use this material from experience seem to be limited.

Bruner goes on to stress the development of sybolization as symbols of aspects of experience, and points out that at this level there is emergent the possibility of a series of cognitive processes that are not possible at the other two levels of development of intelligence. So that if the environment evokes only the first two levels of intellectual functioning and has not prepared the children for school and it is not until after we have added to those two the recognition of the process of civilization, and it as a means of getting more meaning out of experience than one other-wise got, that we have gotten children able to perceive what it means to read, or what it means to tell a story--to tell about one's own experience. Once that level is reached, however, the content of the mind of the individual, his conception of the world in which he sees himself as placed is determined by the scope of the experience he has within his life space, and the question is: How extensive is his life space and what went on there? We then see, by examining the stages of mental development that he has gone through, at what stage he has arrived in what we can logically expect him to know. Indeed, if you were trying to test operational intelligence you would still have to test it in terms of what went on in the life space that he had experienced, rather than in terms of what went on in the tester's life space. Now that is the (a) part of this beginning of the new-found relation.

This involves oral words. There are lots of words, but whose words are largely action words. They are direction words--"do this; don't do that." To some extent they contain modifiers, but not to a very great extent. But they certainly include words. As I explained, much of the culture of Malaysia is this kind of an action relationship to the world of the Malays in Malaysia, and some of the cultures that I've listed elsewhere seem to be of this sort--really an action relation to the world, with the language development rather limited.

Now the other thing that I began speculating on in the development of self was what kinds of cognitive processes are released--or rather, are evocable-by example or by intent of people in the environment, in the child once he has reached the level of functioning and symbolizing. I tried to list here in (a) through (k) some of the trends of things that are evocable or which may simply be developmental--it is hard to tell which because I still feel that what goes on in the child's life space is significant. In watching Piaget in Geneva in 1927/28 when I was there as a colleague of his at the Institute Jean Jacques Rousseau, the children whom he saw functioning and whom he watched become aware of causation, for example, were children of certain cultural backgrounds and children of certain kinds of people, and I think that you cannot separate and say that this is simply a matter of the natural maturation of these things. It is maturation in an environment in that it has already established in very young children the processes of civilization as a significant aspect of learning.

Let's look at a few of those. A child has experiences; he remembers them. He remembers them in terms of kinetic imagery, in terms of visual imagery, in terms of auditory imagery, in terms of olfactory and taste imagery. But somebody has introduced the search for common elements. This is related to our discussion about what we did in Montgomery County with these children who are culturally limited and who were not ready to read when we took them out on walks and had them look at leaves--or they got interested in looking at leaves--and we looked at leaves in terms of their size and various shapes and the way they are put together--the simple leaf and the compound leaf, without calling them that--and in terms of the shape and in terms of the color and in terms of the texture of the leaf when felt, and in terms of its downy or hair--covered appearance, etc. Children discover that they can observe the characteristics of things, of processes, or of events, which is really a discovery they can analyze and in addition to having and experience of something as a total, as a gestalt in relation to their own needs or the intent of others, they can also begin to take an experience apart and look at components of it, and find ways of differentiating things within those components.

This discovery of the mind's capacity to analyze is another kind of discovery--the discovery of causality--the idea, not simply that there is this and there is this, and there is this, but that there is this which is caused by this. Or there is this, and this, and this--and then you get this, and you have a question as to where the causuality lies. It is interesting to watch this in terms of anthropology in different cultures with the imputation of spirits operating--being stones and trees and animals and so on--that impel these things to accord with our needs or to resist our needs. I am not saying that it is our skill or our perception of the characteristics which is at fault, but that there is something inherent in the thing itself which makes it not accord with what we want it to be. And so this is another kind of analysis that the mind discovers that it can make, or that we help children to discover: this causes this....

The whole study of causation in relation to the transmission of energy--this was one kind of causation, but then there was another kind of causation learned from my grandfather with regard to how you make things grow, and why you cultivate, and why you hill certain things up and don't hill other things up, and what kind of fertilizer to put in, and all of this. This is what I was talking about with the Russians: how you grow more wheat. You do not pay the priest to sprinkle holy water, but you learn certain laws and when you obey these you are able to get more effect because there is a causation underlying which you are able to manipulate. And that, of course, has to do with learning to analyze events, and discovering that one can influence events. All of this is growth of self-concept in a way, but when we lump it all together and say it is growth of self-concept, we fail to see the processes of cognitive development as much as when we look at the kinds of specific things. A person sees oneself as able to find common elements; as able to distinguish within an experience elements that one believes will be significant in that experience to analyze, in other words. One sees oneself as able to recognize or plan experiences that will reveal to us what causation is of a particular event that we want to understand. One discovers that when one analyzes an event into the component factors that caused it, and can have control over some of these component factors, one can then see the outcome of the event. So one gradually grows in this sense--in George Mead's terms of "I"; of what I can do. There is the "me" that is acted on by the world, but there is the "I" that can act in the world and produce effects. Part of this development of cognitive processes, nurtured by, and nurturing from the full development of, intelligence, the full evocation of intelligence, lies in learning what kinds of things one's own mind can do. It is amazing that all of this is supposed to be a by-product of the educative process, and none of it is planned in the educative process. All we do is take subject matter areas and teach them as ready-made concepts. We never teach the individual what his mind can do in the development of knowledge, and in the use of knowledge in this way.

Then there is the fact of seeing that people come to a place where they wish something to happen--where they wish to produce an effect. How to produce this effect or how to prevent an effect is a problem. Now then, you discover that if you know enough by the process of analysis about the problem, and have available to you as a result of earlier experience a series of explanatory concepts about the problem, you can then work out what we call hypotheses in science or or ideas about how you can do something constructive in solving this problem. And then you try out the possibilities that you envisage. You discover that there are alternative solutions to problems. You learn to test them for effectiveness, and to select, of course, the one that is more effective as your solution to the problem. This is really a matter of discovering many of the steps in the scientific method as something that it is feasible for the mind to do.

When we come to (i) we come to a different kind of thing. This may be happened on by the individual, but more likely it is engaged in as play with others, and thus one is made acquainted with it by interacting with others. That is, one discovers that one can take elements of his experience and put them together in new ways that they never occurred before, and you get awfully funny things. This is all our mermaid is and our people from Mars, and all the rest of it. They are elements of experience put together in new combinations. This is really the discovery of imagination. Children love this. But, you know, one of the amazing things is that children do not play this way in our culturally limited groups. Nobody has ever introduced them to this, and this is quite a shock to discover this. You just don't realize that there are people who have not done this. It takes quite a little while for them to really discover it and to come to participate in it--that is what we found in experimenting with these youngsters in Montgomery County. Once one has played with experiences in new combinations to see what one gets, one can do this on purpose in order to try to see what can be created--in order to create a new combination of sounds in music, or of movements in dancing. These are great fun to do.

It's fun to play in this way while swimming. I can remember, both in tropical seas and in earlier days in old swimming pools, playing with different movements that are possible in the water--putting together movements in new combinations. Finally, there is possible the purposeful combining of elements of experience in order to solve problems or meet needs. This means inventing machines or equipment, or inventing procedures for accomplishing goals, or inventing procedures for securing new social groupings or new ways of relating to people. These are all ways of applying elements of experience in new combinations in order to invent new social processes. Now this does not pretend to be exhaustive. It only illustrates some of the kinds of mental operations evoked in an environment as a part of the development of intelligence once you have passed the level of symbolization of experience. But the content that the child must work with in doing this will remain the content afforded by experiences in the life space that he has lived.

On the affective side (the self-adjustive processes) we will consider the fact that every experience involves awareness--involves affect also; that cognition or knowing is one side of the reality and feeling about it is the other; that you do not have any knowing without feeling about it; that meaning always involves the affective component as well as the other; and that we move, in area 6, swiftly to say what kinds of situations and experiences evoke not only feelings but the next level of affect: emotions.

Emotions, of course, may be mild or strong, or even so great as to be disorganizing. But if you want to know a child or understand him you would ask, "What kinds of things are specially moving to this youngster in terms of evoking emotion in him?" Then you would ask, "What kinds of patterning of behavior does this youngster show during emotion?" Because there is no instinctive patterning of behavior during the experience of emotion; there is a great deal of cultural conditioning involved. In general, emotions will tend to lead the individual, if they are unpleasant, to break through the barriers that are frustrating, or to go out of the field of things that are frustrating in order to avoid the experience of this frustration.

So you have got only general patterns of emotions that are fundamental and basic; the rest of it is built-in. Part of trying to break down barriers is to hit people and push people and to grab things from people, and all of this, which you see in the kindergarten all the time. But it is immediately conditioned as to its pattern--as to what we permit--and so the growth of the child, the maturing of the child, means the evolving of patterns of behavior during emotion that are acceptable within the culture of which the individual is a part.

In the United States we have, in certain social classes and in certain regions, rather violent ways of expressing emotions--tolerated, even approved, by peers of the people. In other parts of the United

States we have the idea that almost any expression of feeling or of action indicates that the individual is uncultured and not culturally developed, and therefore we have repression of evidences of emotion as an indication of emotional maturity in that kind of a culture. So, you see, the kind of behavior that you get while experiencing emotion will be culturally shaped and will differ a great deal according to the individual's background.

PARTICIPANT: Before you proceed, Dr. Prescott, it might be worth mentioning that at some time in the ages past, some children--some people--in the culture were able to play with making marks on the ground, or on stones, which developed into written language. If the people of that time had suppressed these individuals, we would never have had written language. It is quite possible that parallels might exist, now or in the future, in our own culture.

DR. PRESCOTT: It's a curious relationship between culture and inventiveness.... You can grow up in an environment that is too organized. Our poor youngsters don't even have a chance to decide what they want to play when they're out on the playground at school. Everything is so darned organized for them. Possibly the complexity of children's toys reflects on the complexity of our time, and the old days in which you take the toys apart and put them together again are no longer. Now you play with them a while as you are supposed to play with them and then you destroy them, but you do not put them together again. I mean this is what I think I observe in some children....

We should not overemphasize the cognitive side, the knowing side. Let's not forget this affective side because I have not played it up so much, but all knowing has feeling that goes along with it, and the feeling, when the situation has especially significant meaning, will evoke changes in the organization of energy production in the body, with concomitant feelings that we call emotions. And these changes in the pattern of energy production in the body, appropriate to the meaning of the situation for the individual and the feelings that go along with it, may be mild, strong, or even disorganizing at the emotional level. But the patterning of the behavior is culturally conditioned in a progressive series of ways as the individual matures--according to the culture or subgroup of which he is a part.

When you study emotions as something separate and apart it means little. This is why it has to be studied in relation to cognitive processes, and you marry affect and cognition, and you get emergent some self-organizing factors that I am coming to.

But first I have to stay in this affective side to call attention to the fact that if emotions last a long time, or if there are adjustment problems that persist--that the individual has to keep facing, which keep evoking the same emotions in him--he will have to find some way of preventing this or his body will be damaged. Emotions are completely healthy. They do nobody any damage at all, as long as they happen and are over, but if they keep going on for weeks and months and years, as can happen in children who are rejected; children who are unloved; children whose brothers or sisters are preferred; children who have handicaps of one kind or another; children who are of a social group that is ostracized; or children who belong to a caste, sect, or segment that is rejected as inferior--under these kinds of conditions you must do something about your emotion.

What you have to understand about an emotion is that an emotion is caused not by a stimulus but by a meaning that comes out of the situation of which the individual finds himself. We get angry or afraid because the situation means something to us. We are not afraid lots of times when we should be afraid. Youngsters learning to drive an automobile are not afraid to drive at a rate far beyond the safety factor because they do not realize that momentum means that according to the weight of the car it will resist change of direction. So they do not negotiate a turn sometimes and they turn over....

PARTICIPANT: Would there be a difference between responding not to a stimulus but to the meaning we give the stimulus? Could you talk about unconscious versus conscious meaning? Is it possible, for example, for one to react to a stimulus, not knowing why he is reacting this way because he can give no reason for it--because it is unconscious?

DR. PRESCOTT: Yes, let me get to that next. If a child has something that keeps on causing him emotion, and this emotion threatens to damage his body--as it will if it is strong and active--he must find some way of avoiding that emotion--of having the chance to return to normal physiological functioning--not fully a state of homeostasis, but approaching homeostasis--and he does this. These are called adjustment mechanisms.

One of these adjustment mechanisms is repression: the refusal to admit the existence of something which is disturbing. But the thing still exists and you have only made yourself unconscious of it, so it still operates there in your motivation. It is back in there, but it is repressed. The awareness of it has been repressed. So it is there, and in a way you know it is taken into consideration, and you will get very excited even though you deny that it exists at all.

Most adjustment mechanisms, if you examine them, constitute some kind of an alteration of your perception of reality. In rationalization you explain away the danger, or you explain away the frustration. You say something else is just as good. In compensation you pay yourself for the frustration by doing something else that you enjoy very much, and you say, "Well this is just as good." In saying this, you combine rationalization and compensation. In projection you say, "Sure, I got angry," or "Sure, I did this, because if I hadn't, that person was going to do this. It's that person's fault, not mine, because he had the intention of doing this." You project into someone. In introjection, you draw into yourself sweetness and light, and say, "Oh no, my motivation was like this." You deny the genuine motivation.

There are all kinds of adjustment mechanisms, and so we look at a youngster to see how he distorts his perception of reality in order not to have emotion. It is really an adjustment mechanism to prevent his body from being damaged by too long persistence of emotion. Or, possibly, to prevent his self-image from being too much damaged by too long a persistence of things that give evidence that the self-image is undesirable.

So we make a lot of things unconscious to ourselves in order to prevent ourselves from experiencing the emotion that would come with a bared facing of reality.

PARTICIPANT: Somehow or other I think that the damage of the self-image is so very devastating. I think it's sad when people grow up not to think very much of themselves.

DR. PRESCOTT: Well it is a pity. On the other hand, if you prevent the damaging of the self-image by distorting your perception of reality you are just lying to yourself about what the world is like and about what place in the world is. So this is not very healthy. It is quite unnecessary but that is another kind of problem. The problem there is that it is causation of the reality that is damaging to the self-image.

Well then, I think you see that the individual grows up discovering a mind which will do all of these cognitive things, but he also grows up discovering a world of affect; of feeling, which has to be managed too. And he manages this in culturally determined ways as to how he behaves under emotion, but he also manages this by distorting his perception of reality with adjustment mechanisms which are ways of keeping the emotion from rising too high and lasting too long. He gets addicted to these ways and very often they are easier than working through the cognitive processes, of trying to do something about these situations in the light of reality as it actually is. So you can not see the self processes simply as you ought to do these things in the cognitive area. You have to see them also in terms of what you are addicted to in the affective area. You have to watch this growing in children and try to be helpful.

When you come to a positive structuring of the self, which is the new area 7 that I have been putting up here, I have not got it fully done yet, but it is clear that the structuring of the self always involves both cognitive and affective sides. It is clear, for example, that we come out of life--we go through life--having attitudes. An attitude is how you feel about yourself; how you feel about a particular institution. You know the thing, and knowing it you are glad that it is a certain way. You are for it or you are "agin" it, and this is a position that the self has; a posture in relation to the thing, built out of experience. It begins to determine what you will select as a pattern of behavior toward something involving yourself, or an institution, or another person, or an event. What are you going to do about it?....

For example I have been under totalitarian governments in Russia and in Czechoslovakia, and I have been in Germany shortly after the war was over, and I was there not so long before it began. And my wife went all through it. So 'I' will unquestionably move From any country with that sort of government.

Now this is what I'm saying: your attitude is a posture of readiness with regard to choice of behavior patterns; of means that you learn to use to get to ends. We used to have a good psychologist in California who spoke of means and readiness. This is what an attitude really is, you see-toward or against a pattern of behavior. But attitudes are wider than this. So attitudes are one kind of the factors that organize the self.

Another kind of factor that organizes oneself is one's ethical code, which means one's perception of right and wrong. It means that one wants to do what is right, and one does only reluctantly what is wrong or avoids it entirely. This is conscience. Conscience is gradually developed and matured by cognitive processes; by social and emotional conditioning. But an ethical code is something where you have a knowledge that it is right or wrong and a feeling about its being right or wrong, which means that if you transgress you feel guilt; which means that if you do not transgress, if you do not feel virtuous, at least you feel relieved or glad that you did not transgress. So this involves both affect and cognition--this ethical code business. It surely is built in according to society, because you can take any western society and study how its ethical code has evolved through the centuries, and you can see that with regard even to particular denominations--how what they have condoned or permitted has evolved.

It seems a little strange to run into churches that way to a girl, "You may not dance," or to a boy, "You may not to the movies," because in our culture these things have become approved and no longer are unethical. But they were rigidly ruled, just as in some circles it is still rigidly wrong to have a drink. But there are whole cultures where a certain amount of drinking is expected, and where there is a place with regard to drinking that the ethical code deals with. Now there are attitudes--the ethical code, you see, is in a way a set of attitudes, but it is a series of prescriptions and proscriptions. It is stronger and it results in a feeling, in relation to self, of guilt or a feeling of gladness that one has not transgressed.

The next level that we get to is the level of values. Now these have very strong affective components. A value, growing out of one's experience, mediated by one's culture--individually arrived at but mediated by the culture; dependent upon one's time in the history of the world; what has happened and the kind of participation we have had in what has happened. Remember it is an altogether different thing to have grown up in the depression times, when one was young and impressionable, to what it was to have grown up during the Second World War era--largely an era of prosperity in our country. You have got three very sharply different impacts on young people as to what is really valuable growing out of these three eras in my observing lifetime. So that events make a difference, but values are convictions that an individual develops, that answer for him, in terms of operations--what he wants to do. "What am I really trying to put into life?" "When it comes to a real showdown, what will I sacrifice in order to be able to get this?" "What will I be willing to do in order to have something happen?" "In what do I really believe?"

These convictions of value are very strongly organizing factors, and our loves are among our values. If you really love somebody, you see, they come amongst the things that you will put down a whole lot for, to put a lot into.

Once you have your values, your codes, and your attitudes, an event has meaning for you in relation to these values and in relation to your continuing adjustment problems: your anxieties and fears. So you perceive the meaning in the situation in terms of values and anxieties. But the human self does not stop just with this perception. The human self seems to translate convictions of value into aspirations and hopes, and that means a picture of things different from the way they are: in accord with what you value, and of less in them of what you are anxious about. These aspirations and values often are quite remote. They may be quite long-term, and so to get toward them you see a series of steps which are goals and which are feasible to take, one after the other.

Here, you see, we have gradually shifted through both cognitive and affective influences; from being shaped--by physical limitations; by the conditions of love under which we live; by the influence of our peers and by cultural conditionings; by the time in the world's history in which we live--from being shaped to people who have visions and aspirations that are translatable into a series of steps that we call goals. But if you are watching the child in the process of moving through this you can identify factors that are influencing this. It seems to me the job of a teacher becomes more significant and itself describable in terms of goals that each one himself would define in the light of his perceptions, given the values that he has.